CONTENTS

THE ENTOMOLOGIST, J. C. FABRICIUS, *S. L. Tuxen* 1
TEMPERATURE EFFECTS ON EMBRYONIC DEVELOPMENT IN INSECTS, *R. W. Howe* 15
GUT ABSORPTION, *J. E. Treherne* 43
FOOD SELECTION BY GRASSHOPPERS, *G. B. Mulkern*. 59
BIONOMICS AND ECOLOGY OF PREDACEOUS COCCINELLIDAE, *I. Hodek* . 79
FUNGAL-INSECT MUTUALISM IN TREES AND TIMBER, *K. Graham* . . 105
SYSTEMIC INSECTICIDES IN TREES, *D. M. Norris*. 127
INSECTS AND THE PROBLEM OF AUSTRAL DISJUNCTIVE DISTRIBUTION, *L. Brundin* 149
THE EVOLUTION AND PAST DISPERSAL OF THE TRICHOPTERA, *H. H. Ross* 169
EVALUATION OF FOREST INSECT INFESTATIONS, *F. B. Knight* . . . 207
MODE OF ACTION OF INSECTICIDE SYNERGISTS, *R. L. Metcalf* . . . 229
CONSEQUENCES OF INSECTICIDE USE ON NONTARGET ORGANISMS, *L. D. Newsom* 257
A CRITICAL REVIEW OF *Bacillus thuringiensis* var. *thuringiensis* BERLINER AND OTHER CRYSTALLIFEROUS BACTERIA, *A. M. Heimpel*. 287
ALLERGIC RESPONSES TO INSECTS, *S. Shulman* 323
TRANS-STADIAL AND TRANSOVARIAL DEVELOPMENT OF DISEASE AGENTS IN ARTHROPODS, *W. Burgdorfer and M. G. R. Varma* . 347
TICKS IN RELATION TO HUMAN DISEASES CAUSED BY *Rickettsia* SPECIES, *H. Hoogstraal*. 377
RECENT FUNDAMENTAL WORK ON TSETSE FLIES, *J. P. Glasgow* . . 421
RECENT ADVANCES IN BEE COMMUNICATION AND ORIENTATION, *M. Lindauer*. 439
THE EVOLUTION AND GENETICS OF INSECT BEHAVIOUR, *A. W. Ewing and A. Manning* 471
ACOUSTICAL COMMUNICATION IN ARTHROPODS, *R. D. Alexander* . . 495
AUTHOR INDEX 527
SUBJECT INDEX 541
INDEX OF CONTRIBUTING AUTHORS 555
INDEX OF CHAPTER TITLES 557

AUTHOR INDEX

A

Abbas, M., 379
Abbass, M., 379
Abbassian-Lintzen, R. A., 393
Abbott, R. L., 43, 44, 53
Abd-El-Messih, G., 379
Abedi, Z. H., 248
Abou-Gareeb, A. H., 379
Acree, F., Jr., 260
Adams, J. C., 296
Adie, R. J., 162
Adkisson, P. L., 266
Adler, S., 364
Adrew, R., 405
Aeschlimann, A., 363, 365
Afanador, A., 385
Afrikan, E. K., 287
Agacino, E. M., 63
Agosin, M., 247
Agrawal, H. C., 17
Ahmed, M. K., 265
Ainsworth, G. C., 107
Aitchison, J., 21
Aitken, T. H., 353
Aitken, T. H. G., 266, 352, 388
Akan, E., 380, 401
Akesson, N. B., 257, 260
Akhverdiyev, A. R., 60
Al-Azawi, A. F., 131, 132, 133, 135, 138, 139, 141, 144
Aldrich, R. C., 223
Alexander, G., 61, 62
Alexander, R. A., 397, 398
Alexander, R. D., 495-526; 476, 480, 488, 489, 495, 499, 503, 504, 506, 507, 508, 509, 510, 511, 512, 513, 514, 516, 517, 520
Alford, H. J., 366
Alfy, L., 379
Alifanov, V. I., 392
Allais, J. P., 17
Allard, H. A., 508
Allee, W. C., 207, 209, 211
Allen, N., 313
Allen, R. K., 169, 200
Allison, D., 262, 269, 273
Allred, A. M., 248, 250
Allred, D. M., 386
Al Rawy, A., 33
Alymov, A. J., 354
Amaro, J. P. P., 19
Ames, P. L., 272, 274
Amman, G. D., 207, 209, 215
Amouriq, L., 79
Anacker, R. L., 380, 394
Anastos, G., 382, 393, 394
Andelman, M. B., 273, 276, 277
Anderson, C., 363
Anderson, C. R., 350, 352
Anderson, D. T., 17
Anderson, J. F., 62, 70
Anderson, L. D., 267
Anderson, N. B., 309
Anderson, N. L., 60, 62
Andral, L., 354
Andrewartha, H. G., 15, 24, 33, 35, 37, 207, 208, 209
Angus, T. A., 287, 288, 293, 294, 298, 299, 300, 302, 303, 304, 305, 306, 309, 313
Anliker, R., 135
Anscombe, F. J., 207, 209, 215
Anthony, D. W., 430
Aragao, H. B., 388, 389
Arbesman, C. E., 325, 329, 332, 333, 337, 340, 341
Archer, G. T. L., 393, 400
Arkawa, K. Y., 294, 295
Arrand, J. C., 131, 143
Arrow, G. J., 495
Arthur, D. R., 348, 386, 393, 394
Asanuma, K., 360
Ascher, K. R. S., 248, 251
Aschner, M., 114
Ashall, C., 61, 65, 67
Ashdown, D., 259, 266
Asquith, D., 266
Atallah, Y. H., 267, 268
Atkins, E. J., Jr., 267
Attiah, H. H., 266
Atwal, A. S., 81, 87, 93
Atwood, E. L., 382
Audy, J. R., 389, 406
Autrum, H., 453, 458, 461, 495
Avakian, A. A., 350
Avidoz, Z., 87, 91
Azevedo, J. A., Jr., 262, 272, 273
Aziz, S. A., 65

B

Babos, S., 394
Babudieri, B. Q., 359
Baccetti, B., 60
Bacha, W. J., Jr., 389
Bachmann, F., 131
Badger, L. F., 382
Bahmanyar, R., 365
Bailey, V. A., 208
Bailey, W. F., 223
Baker, J. M., 107, 111, 113, 115
Baker, R. J., 261
Bakker, K., 20
Bakry, N. M. S., 240
Balashov, J. S., 348
Balch, R. E., 208, 209, 212
Balduf, V. W., 84, 89
Baldwin, F. W., 60
Baldwin, P. H., 207, 209, 215
Ball, E. D., 60
Baltazarad, M., 361, 365
Banks, C. J., 82, 87, 90, 93
Bänsch, R., 87
Bárány, E., 55
Barber, H. S., 508
Barjac, H., 288, 289, 290, 291, 293, 296, 297, 298
Barker, R. J., 232
Barlow, F., 242
Barlow, J. S., 51, 512
Barnard, J. H., 335
Barnard, K. H., 181
Barnes, O. L., 67, 70
Barontini, A., 129, 130, 132, 139
Barta, L. R., 110, 119
Barthel, W. F., 232, 233
Bartlett, B. R., 94, 264
Bartsch, G., 111, 114
Bastock, M. A., 472, 473, 475, 477
Bates, A. N., 234
Bauer, K., 257, 261
Baugh, A. T., 340
Bauman, M., 440
Baumert, D., 266
Baylor, E. R., 458
Bayona, I. G., 334
Bayramoglu-Ergene, S., 461
Bazzi, B., 135
Bean, J. L., 20, 24, 223
Beard, R. L., 266, 267, 335
Beck, D. E., 386, 389

Beck, E. W., 260, 263
Becker, G. C., 128, 131, 137, 144
Beeson, C. F. C., 119
Beguin, S., 294
Behrendt, K., 93
Behrenz, W., 114
Belayeva, A. P., 390
Belikova, N. P., 392, 395
Bell, E. J., 356, 357, 360, 378, 380, 397, 405, 406
Bell, J. F., 349, 366, 367, 388, 389
Belozerov, V. N., 392
Belton, P., 495
Belyea, R. M., 116
Benami-Pinto, C., 333
Benda, R., 351
Benjamin, D. M., 128, 131, 136, 137, 140, 144, 208
Benjamini, E., 334
Bennett, S. H., 127, 128, 130, 131
Benson, R. L., 326, 333, 334, 335
Bentley, D. R., 480
Benton, A. W., 336
Berger, R. S., 248
Bergerard, J., 17
Beriger, E., 135
Berliner, E., 299
Bernard, R. F., 272
Bernton, H. S., 334
Beroza, M., 232, 233, 260
Berridge, M. J., 47, 48
Berry, G. P., 353, 354
Bertram, D. S., 353, 378
Betten, C., 170
Bevan, C., 397
Beyer, O., 295, 296
Beytout, D., 402
Bhat, J. V., 52
Bhatia, D. R., 60, 61, 67
Bhoola, K. D., 338, 339
Biache, G., 295, 296
Bielawski, R., 90
Bier, K., 498
Bigelow, R. S., 33, 476, 489
Bigelsen, F., 332, 338, 342
Bigger, J. H., 259, 260, 261
Bigley, W. S., 237, 243
Billiotto, E., 313
Biondi, G., 129, 130, 132, 139
Birch, L. C., 15, 21, 24, 33, 207, 208, 209
Birk, Y., 17
Biron, S., 87, 91
Birse, V. W., 276, 277
Bischoff, A. I., 262, 269, 272, 273
Bisetzky, A. R., 445
Bishopp, F. C., 386, 387, 388, 405
Blackman, R. L., 85, 86, 87
Blair, W. F., 509
Blaizot, L., 361
Blanc, G., 357
Blaskovič, D., 351, 352
Blattner, R. J., 352, 353, 354
Blest, A. D., 480, 482
Blewett, M., 114
Bliss, C. I., 209, 215, 219
Blum, M. S., 231, 246, 248, 249
Bobrovskii, V. N., 393, 395
Boch, R., 441, 449, 450
Bodenheimer, F. S., 87, 91
Boero, J. J., 389
Bogdanova, N. L., 94
Bombosch, S., 93, 95
Bondi, A., 17
Bone, G., 48
Bongberg, J. W., 207
Bonnefoi, A., 288, 289, 290, 291, 294, 309
Bonnemaison, L., 88, 91
Bonni, J. M., 405
Borges, F. J., 382
Bornstein, J., 246, 248, 249
Boronicka, R. L., 262, 263, 269, 270
Boros, C., 116, 120
Bosch, R., 262
Bose, P. N., 360
Bösiger, E., 473, 478
Bossert, W. H., 497, 498, 500
Botosaneanu, L., 170
Boudreau, J. C., 478
Boudreaux, H. B., 33, 266
Bourguignon, S., 315
Bow, M. R., 385
Bowman, J. S., 132, 133
Bowman, M. C., 260
Boyd, C. E., 271
Bozeman, F. M., 384, 397, 403
Bozhenko, V. P., 366
Brady, J., 272, 275
Bragg, J. H., 60
Brain, C. K., 105
Bräuninger, H. D., 446
Bravo, G., 80, 84
Bredermann, G., 67
Brethons, J. R., 313
Brett, C. H., 65, 70
Briant, A. M., 257
Bridges, P. M., 230
Briggs, J. D., 293, 296, 308
Bright, H. J., 238
Brindley, W. A., 242
Brinton, E. P., 386
Broadhurst, P. L., 477
Brock, T., 327
Brodie, B. B., 236, 238, 241
Brody, J. A., 405
Bronson, P., 329, 337, 341
Broughton, W. B., 500, 502, 503, 505
Brower, A. E., 208
Brower, J. V. Z., 490
Brower, L. P., 490
Brown, A. W. A., 243, 244, 245, 247, 248, 257, 267
Brown, E. S., 60, 111
Brown, F. A., 472, 473
Brown, H., 334
Brown, H. E., 129, 130, 131, 143
Brown, J. H., 385
Brown, R. G. B., 481, 485
Browning, T. O., 24, 33, 36
Bruce, H. M., 498
Bruce, W. N., 259, 260, 261, 262, 263, 276
Bruell, J. H., 477
Brumpt, E., 365, 386, 400
Brundin, L., 149-68; 152, 169, 200
Brunson, A. M., 60
Brusven, M. A., 61, 62, 70
Bryan, D. E., 388
Buchner, P., 107, 110, 111, 116, 120
Buckhorn, W. J., 223
Buckner, A. J., 246, 250
Buffam, P. E., 215
Bull, D. L., 135
Burdick, G. E., 269, 270, 271, 273
Burgdorfer, W., 347-76; 348, 349, 350, 351, 355, 356, 363, 364, 367, 378, 383, 384, 385, 406
Burgerjon, A., 287, 292, 293, 294, 295, 296, 298, 309, 310, 311
Burges, H. D., 289, 308
Burkhardt, D., 453, 458, 504
Burkhardt, O. C., 84
Burnett, G. F., 428
Burns, E. C., 313
Bursell, E., 428, 429, 437
Burton, V. E., 258
Burtt, E. T., 66
Busnel, R. G., 504, 508, 511
Bustamante, M. E., 385
Butcher, J. W., 144, 259
Butenandt, A., 450

Butler, C. G., 439, 440, 498
Butler, P. A., 262, 267, 268, 270
Butz, A., 16
Buxton, D. R., 60
Buxton, P. A., 433
Bykov, L. T., 367

C

Calhoun, E. L., 366
Callaham, R. Z., 107, 116
Callahan, P. C., 65, 69
Callahan, P. S., 497
Calle, J., 338, 339
Camin, J. H., 389
Campbell, F. L., 17, 37
Campbell, J. B., 61
Campbell, J. L., 257, 262, 276, 277
Campbell, J. M., 397
Campbell, R. W., 224
Campbell, W. V., 94
Canaris, A. G., 368
Candy, D. J., 51
Cantrall, I. J., 60
Cantwell, G. E., 290, 292, 294, 295, 296, 315
Capenos, J., 458
Capponi, M., 393, 397, 401, 402
Carisle, D. B., 69
Carnes, E. K., 94
Carolin, V. M., 209, 215
Carpenter, F. M., 191
Carson, R., 257, 277
Carvell, K. L., 133, 144
Casida, J. E., 131, 132, 133, 134, 135, 136, 138, 139, 141, 144, 229, 235, 236, 237, 239, 242, 243
Caspari, E., 477
Castaneda, M. R., 358
Catton, W. T., 66
Cavazzi, G., 400
Cawley, E. P., 382
Cerny, V., 394
Chadwick, L. E., 16
Chalgren, W. S., 388
Chamberlain, R. W., 348, 353, 354
Chang, K. C., 94
Chang, R. S. M., 381
Chang, S. C., 229, 231, 233
Channa-Basavanna, G. P., 89
Chant, D. A., 278
Chapman, G. A., 237, 244
Chapman, J. A., 120
Chapman, R. F., 60, 61, 62, 65, 66, 67, 69
Chapman, R. K., 134
Charters, A. D., 400
Chauvin, R., 67, 68, 214
Chavasse, P., 500
Chefurka, W., 37, 70
Chen, S. H., 495
Cherkasov, J., 88, 89, 91
Chiang, H. C., 83, 84, 86, 95
Chinery, W. A., 349
Chin-Juei, L., 406
Chino, H., 17
Chisholm, R. D., 260
Choudhuri, D. K., 23, 25, 33, 34
Christensen, R., 272, 273
Christophers, S. R., 33
Chudesova, V. P., 367
Chumakov, M. P., 351, 353
Chumakova, B. M., 86
Clark, E. C., 215
Clark, G. M., 352
Clark, L. R., 60, 278
Clark, P. J., 223
Clemons, R. D., 46
Clifford, C. M., 379, 389, 400
Cloudsley-Thompson, J. L., 26, 37
Cluzel, P., 402
Coca, A. F., 328
Cohen, S., 246, 248, 249, 252
Colas-Belcour, J., 363
Colby, D., 269, 270, 271, 273
Cole, L. C., 278
Cole, M. M., 387
Cole, W. E., 222
Collins, D. L., 387
Collyer, E., 89
Colquhoun, M. K., 90
Colwell, R. N., 223
Complin, J. O., 133, 144
Condrashoff, S. F., 131, 143
Connell, J. T., 332
Conner, R. M., 311
Connin, R. V., 67, 68
Connola, D. P., 222
Connolly, K., 478, 479
Conrad, M. S., 84
Conseil, E., 361
Cook, J. A., 223
Cooley, R. A., 386, 387, 388, 404
Cope, O. B., 262, 269, 273
Copeland, E., 48
Copeland, M. F., 276, 277
Coppel, H. C., 128, 129, 130, 131, 132, 133, 134, 136, 137, 141, 144
Cornwell, P. B., 66
Cottam, C., 278
Cotton, W. D., 271
Couch, J. N., 107, 110, 116, 117
Couper, R. A., 150
Cowan, F. T., 67, 68
Cox, G. W., 404
Cox, W. S., 258, 259
Coyne, J. F., 223
Crafts, A. S., 128, 132
Crane, J., 481, 484
Cranston, F. P., 490
Cranwell, L. M., 150
Creighton, C. S., 313
Crescitelli, F., 66
Cressman, A. W., 29
Crichton, M. I., 172, 188
Criddle, N., 60
Criep, L. H., 332
Crisp, D. J., 54
Crocker, C. G., 398
Crossley, S., 472
Crouter, R. A., 264
Crowdy, S. H., 128
Cuénot, L., 49, 54
Cueto, C., Jr., 277
Culley, D. D., 271
Cunningham, H. B., 202
Currie, J. E., 22
Cwilich, R., 246, 248, 250

D

Dadd, R. H., 50, 59, 67, 68
Dahm, P. A., 242
Dale, W. E., 276, 277
Damme, E. N. G., 303, 311
Danilevskii, A. S., 87, 392
Darlington, P. J., Jr., 195, 200
Darrow, D. I., 243
Dau, H., 398
Daubney, R., 352
Daumer, K., 452, 454, 458
Dauterman, W. C., 135
Davey, K. G., 44
Davey, S. P., 261, 273
David, W. A. L., 33
Davidson, J., 25
Davis, G. E., 360, 361, 365, 404
Davis, G. R. F., 71
Davison, J. D., 332
Dawsey, L. H., 260, 263
Day, M. F., 43
Deal, A. S., 258
Dean, G. A., 335
Dean, H. J., 269, 270, 271, 273
DeBach, P., 92, 94, 208
De Barjac, H., 288, 289, 292, 293, 294, 295, 296, 297
de Barros Machado, A., 436

De Beaufort, F. L., 200
De Bellesme, J., 49
Decker, G. C., 29, 70, 202, 259, 260, 261, 262, 263, 276
Dedonder, R., 296, 297
de Fluiter, H. J., 92
de Meillon, B., 398
DenBoer, P. J., 266
Denning, D. G., 193
de Pietri-Tonelli, P., 127, 128, 129, 130, 131, 132, 133, 135, 139
Derkach, A. D., 80, 82
de Rodaniche, E. C., 385
Derr, R. F., 17
de Sinéty, R., 54
Desnues, P., 402
Desportes, C., 386
Desrotour, J., 434, 435
Dethier, V. G., 434, 498, 520
de Toledo Piza, J., 385
De Vries, H., 458
DeWitt, J. B., 272, 274
Diamond, J., 48
Dias, E., 386
Dick, G. W. A., 400
Dick, L. S., 383
Dietrick, E. J., 83, 93, 94
Diggle, W. M., 242
Dimond, A. E., 127, 128, 134
Dinamarca, M. L., 247
Dixon, A. F. G., 84, 85, 87
Dobzhansky, T., 80, 81, 89, 472, 507
Dodds, M. L., 257
Dodds, R. P., 271
Donatien, A., 360
Donley, D. E., 128, 134, 143
Dorough, H. W., 235, 236, 237, 239
Dorsey, C. K., 133, 144
Dostal, B., 463
Douglass, J. R., 90
Douthwaite, M., 398
Doutt, R. L., 84, 94, 208
Downes, J. A., 37, 508
Drake, C. J., 70
Dreux, P., 60
Drooz, A. T., 264
Drysdale, A. D., 400
D'Silva, H. A. M., 402
Du Bois, K. P., 245
Duck, L. G., 61
Duffy, B. J., 435
Duffy, J. R., 248
Duijm, M., 508
Dukes, C. D., 340
Dumas, N., 393, 397, 401
Dume, P. H., 309
Dumina, A. L., 348, 351
DuMortier, B., 495, 504, 508, 511
Duncan, J., 242
Dunn, J. A., 93
Dunn, L. H., 388
Dunn, P. H., 294, 296
Dunstan, G. H., 257, 258
Durham, O. C., 329
Durham, W. F., 257, 276, 277
Du Rietz, G. E., 150
Dutton, J. E., 362
Dyadechko, N. P., 82, 84, 95
Dyer, R. E., 382

E

Easler, D., 477
Eddy, G. E., 389
Eddy, G. W., 243, 244
Edgington, L. V., 134
Edmunds, G. F., 169, 200
Edmunds, L. N., 232
Edwards, C. A., 259, 261
Edwards, R. L., 60
Edwards, S. W., 176
Ehrman, L., 491, 507
Eidmann, H., 44, 134, 144
Eisenberg, B. C., 333
Eisner, T., 53, 54
Eklund, C. M., 349, 352, 381, 382
el Aziz, S. A., 233, 234, 235, 237, 238, 239, 240
Eldefrawi, M. E., 235, 236, 237
Elens, A. A., 472
El Hariri, G., 81, 85, 88
Elisberg, B. L., 382, 403, 406
Elizondo, A., 385, 389
Elizondo Langagne, A., 385
Ellis, P. E., 61, 65, 67, 69, 498
El Rai, F. M., 379
ElSayed, I., 267, 268, 272, 275
El-Sebae, A. H., 240
Elson, P. E., 269, 271
El-Zawahry, M., 379
Emerson, A. E., 200, 207, 209, 211
Emerson, R. B., 265
English, L. L., 139, 140, 144
En-Shu, Y., 406
Erickson, R., 335, 336, 340
Erlenmeyer-Kimling, L., 478
Ertelt, R. J., 60, 61
Esch, H., 441, 519
Estes, Z. E., 300, 303, 305
Etienne, J., 17
Etter, R. L., 335
Evans, C. A., 389
Evans, D. G., 20, 25, 32
Evans, F. C., 223
Evans, W. A. L., 16
Evlakhova, A. A., 303
Ewan, H. G., 215
Ewert, M. A., 83, 84, 86
Ewing, A., 480
Ewing, A. W., 471-94; 474, 477, 478
Eyring, H., 37

F

Faber, A., 495, 507, 509, 513, 518
Fackler, W. R., 335, 339
Fadness, L., 352
Fagerson, I. S., 257
Fahey, J. E., 259
Fahmy, M. A. H., 233, 234, 235, 236, 237, 238, 240, 241
Fairchild, M. C., 84
Fairey, E. M., 440
Falconer, D. S., 477
Falk, H. L., 257
Farris, S. H., 119, 120
Farstad, C. W., 60
Fasulati, K. K., 80, 82
Fauran, P., 388, 389
Faure, J. C., 60
Faust, R. M., 301, 302, 303, 305
Favrot, L., 340
Fay, R. W., 248, 250
Fedorindrik, N. S., 287
Fedorova, N. I., 395
Feinberg, A. R., 333
Feinberg, R. J., 332
Feinberg, S. M., 333
Feingold, B. F., 334
Felsenfeld, O., 361
Fenjves, P., 82, 95
Fenner, F., 401, 405
Ferguson, D. E., 271
Ficken, M., 498
Ficken, R., 498
Figley, K. D., 326, 328, 333
Filippov, N. N., 79
Findlay, G. M., 393, 400
Finelle, P., 434, 435
Finlayson, D. G., 257, 259
Finlayson, M. H., 398
Finnegan, S., 402
Fiori, A., 79
Fischer, W., 463
Fishbein, W. I., 273, 276, 277

Fisher, R. A., 209, 215, 219, 308
Fisher, R. B., 55
Fisher, R. C., 106
Fisher, T. W., 94
Fittkau, E. J., 165
Fitz-James, P. C., 298, 302, 304
Fleck, R., 60
Flick, J. A., 332
Flint, O. S., Jr., 176, 178, 185, 195, 196
Flint, V. E., 393
Flitters, N. E., 20, 21, 23, 24, 27, 30, 31, 33
Floch, H., 388, 389
Florin, R., 150, 164
Florio, L., 352
Florkin, M., 16, 17
Foggie, A., 360
Forbes, W. T. M., 172, 173
Ford, E. B., 79, 80, 81
Ford, J., 422
Forel, A., 462
Forgash, A. J., 251
Foster, N. M., 354
Foubert, E. L., Jr., 340
Fox, E. H., 260, 276
Fox, I., 334
Fraenkel, G. S., 66, 69, 114, 327, 518
Francis, E., 365, 366
Francke-Grosmann, H., 107, 110, 111, 113, 114, 115, 116, 119, 120
Franklin, B. A., 315
Franz, J., 84, 288, 313
Fratantoni, J., 248
Frazer, J. F. D., 92
Frazier, C. A., 335
Frear, E. H., 261
Free, J. B., 450
Freeman, P. A., 161
Frehse, H., 128
Friedhoff, K. T., 355
Friedman, H., 332
Frings, H., 495, 504, 506, 520
Frings, M., 495, 504, 506, 520
Fritz, R., 61
Frost, S. W., 495
Fukushi, K., 380, 394
Fukuto, T. R., 134, 229, 233, 234, 235, 236, 237, 238, 239, 240, 242
Fuller, H. S., 360, 382, 384
Fuller, J. L., 476, 477
Fuller, R. W., 66
Fulmek, L., 84
Fulton, B. B., 495, 504, 508, 511
Funk, A., 119
Furano, E., 339
Furman, J. E., 382
Fuzeau-Braesch, S., 498

G

Gaber, S., 401
Gage, J. C., 242
Gaillard, G. E., 327, 328, 333
Gaines, J. C., 260
Galecka, B., 82, 95
Galichet, P. F., 293, 296
Galiyev, R. S., 367
Gangwere, S. K., 59, 61, 62, 63, 65
Gara, R. I., 116
Garber, M. J., 235
Gardiner, B. O. C., 33
Gardner, D. T., 271
Gary, N. E., 440, 450
Gastifriend, A., 386
Gatterdam, P. E., 134
Gawande, R. B., 86
Gear, J., 357, 397, 398
Gear, J. H. S., 397, 398
Geary, J. M., 388
Geer, B. W., 472, 476
Geier, P. W., 278
Geiger, M., 135
Geigy, R., 363
Geis, A. D., 273
Gelperin, A., 44, 50
Genelly, R. E., 269, 272
George, D. A., 274, 276
George, J. E., 389
George, J. L., 272
George, K. S., 84
Georghiou, G. P., 233, 235, 237, 247
Gerlach, A. R., 262, 263, 269, 270
Gerloff, R. K., 404
Gerrish, R. R., 386
Gerson, V., 87, 91
Getzin, L. W., 134
Ghent, A. W., 224
Ghent, R. L., 450
Ghosh, M., 360
Ghosh Roy, B. K., 360
Giagomelli, R., 135
Giese, R. L., 136, 144 208
Giglioli, G., 266
Gilby, A. R., 37
Gilford, J. H., 356
Gilkes, C. D., 388
Gill, G. D., 388
Gillette, J. R., 236, 238, 241
Gingrich, R. E., 296
Ginsburg, J. M., 259
Giroud, P., 359, 393, 397, 401
Glaser, R. W., 114
Glasgow, J. P., 421-38; 421, 422, 425, 426, 427, 429, 430, 434
Glasgow, L. L., 272
Glynn, I. M., 46
Godwin, P. A., 223
Goette, M. B., 248, 250
Goldberg, M., 327
Goldsmith, T. H., 458, 459
Goldwasser, R. A., 383
Golinevich, E. M., 357
Goodhue, D., 67, 68
Goodman, R. N., 127, 128
Gordon, H. T., 241
Gottlieb, P. M., 333
Gouck, H. K., 387
Gould, D. J., 384
Goy, R. W., 473
Graddock, A. L., 400
Graham, K., 105-26; 208
Graham, S. A., 208, 212
Graham, W. M., 27
Graham, W. W., 27
Graham-Smith, G. S., 48
Grainger, W. E., 399
Granick, S., 46
Graves, J. B., 267
Gray, A. P., 509
Gray, I. E., 516
Grebenyuk, R. V., 367, 394
Green, G. W., 224
Green, J., 15
Green, M. M., 472, 476
Green, R. G., 389
Greenbank, D. O., 208
Greenberg, H., 232
Greenwood, E. S., 295, 308
Gregson, J. D., 385, 387, 388
Gresham, G., 268
Gressitt, J. L., 155, 159
Grigarick, A. A., 258
Grigorova, R., 292
Grison, P., 295, 315
Grobler, J. M., 398
Grokhovskaya, I. M., 357, 396
Grzenda, A. R., 258, 259
Gudoshnik, A. N., 367
Guichard, K. M., 60
Guindy, E., 401
Gunn, D. L., 66, 518
Gunstream, S. E., 33, 37
Gupta, B. L., 48
Gutenmann, W. H., 260, 276
Guyer, G., 144
Gyenes, L., 325
Gyrisco, G. G., 260, 276

H

Haberkorn, A., 361
Habermann, E., 336
Hackman, R. H., 327
Hacskaylo, J., 135
Hadaway, A. B., 242

Hadler, N. M., 478
Hadley, C. H., 60
Hagen, A. F., 67, 70
Hagen, K. S., 79, 84, 86, 87, 88, 89, 90, 91, 93, 94, 95, 262, 278
Hagendijk, C. J., 243, 244, 245
Hailman, J. P., 488
Hairston, N. G., 208
Hall, D. G., 257, 258, 260
Hall, I. M., 83, 93, 94, 294, 295
Hall, V. A., 472, 473
Haller, H. L., 232
Hamilton, R. H., 261
Hamilton, W. D., 474
Handee, E. C., 110, 119
Handford, R. H., 70
Hanna, A. D., 128, 134, 138, 141, 144
Hannay, C. L., 292, 298, 302
Hansen, P. A., 311
Hansen, R. M., 223
Hanson, J. B., 140, 144
Hansson, A., 520
Harada, T., 94
Hardee, D. D., 260, 276
Harding, J. P., 22
Harker, J., 20
Harley, J. M. B., 431, 432
Harley, K. L. S., 278
Harpaz, I., 17, 91
Harper, H. T., 273
Harrell, G. T., 382
Harries, F. H., 18, 28, 33
Harris, E. J., 46, 269, 270, 271, 273
Harrison, F. P., 84
Harrison, J. L., 406
Harrison, W. A., 230
Hartenstein, R., 215
Hartig, T., 106
Hartigan, J., 248
Hartman, P. A., 296
Hartstirn, W., 139, 140, 144
Harvey, A. E. C., 361, 399
Harvey, G., 304
Harvey, T. L., 313
Harvey, W. R., 37, 46
Harwood, R. T., 17
Haskell, J. A., 46
Haskell, P. T., 480, 495, 506, 508, 513, 514, 518, 520
Haskins, C. P., 477
Haskins, E. F., 477
Hawkes, O. A. M., 79, 80, 86
Hayes, W. J., Jr., 257, 273, 276, 277
Hayne, D. W., 273
Haynes, D. L., 144
Hazlett, B. A., 513
Hearon, J. Z., 16, 23, 37
Heath, R. G., 272, 274
Heathcote, G. D., 82
Heatherington, W., 128, 134, 138, 141, 144
Hecht, O., 87, 91
Heikertinger, F., 92
Heikkenen, H. J., 223
Heimpel, A. M., 287-322; 287, 288, 289, 290, 292, 293, 294, 295, 298, 299, 300, 303, 304, 306, 309, 313
Heisch, R. B., 361, 399, 400
Heitz, E., 111, 114
Heiwen, W., 303
Helle, W., 265
Heller, R. C., 223
Hellreich, E., 327
Helmy, I., 379, 394, 401
Henderson, C., 258
Hennessy, D. J., 236, 238, 240, 248
Hennig, W., 151, 152, 156, 159
Henson, W. R., 215
Heran, H., 445, 447, 519
Herbert, H. J., 19
Herfs, W., 287, 293, 294, 295, 309, 311, 312, 313, 314, 315
Herrick, G. W., 60
Herrin, C. S., 389
Hertz, M., 454
Herzog, D. C., 259, 266
Hetrick, L. A., 115
Hewlett, P. S., 229, 232, 233, 234
Heys, F. M., 352, 353, 354
Hickey, J. J., 272, 275
Hicks, W. R., 495
Hightower, J. A., 382
Hikichi, A., 265
Hill, R. E., 62
Hilliard, J. R., 61, 62
Hindin, E., 257, 258
Hirsch, J., 478
Hixson, H., 405
Hjelle, D. K., 66
Hobson, R. P., 45, 54
Hockett, C. F., 497, 503
Hodek, I., 79-104
Hodge, C., 70
Hodgkin, A. L., 46
Hodgson, C. J., 60
Hodgson, E., 239
Hodson, A. C., 25, 27, 29, 33, 34
Hoffmann, C. H., 264
Hoffmann, M. A., 387, 388, 389, 404
Hoffmann, W. S., 273, 276 277
Hogan, T. W., 16, 34, 36, 116
Holbrook, D. V., 17
Holdstock, D. J., 338
Holland, R. F., 260, 276
Holling, C. S., 216
Hollingworth, R., 243
Holman, J., 93, 94
Holmes, A., 165
Holmes, K. C., 303
Holst, E. C., 475
Hoogstraal, H., 377-420; 347, 351, 352, 379, 389, 394, 395, 397, 400, 401, 402, 403, 404, 406
Hooker, J. D., 149
Hoopingarner, R., 299
Hopla, C. E., 366
Hoskins, W. M., 236, 245, 246, 247
Hosny, A., 379
House, H. L., 51, 297
Houston, D. R., 208
Howden, G. F., 51
Howe, R. W., 15-42
Howell, D. E., 387
Howse, P. E., 504, 506
Hoyle, G., 480, 486
Huang, L. L., 94
Hubbs, C. L., 509
Huber, F., 476, 480, 486, 517, 520
Huddleston, E. W., 259, 266
Hudson, J. R., 352
Hueck, H. J., 266
Huffaker, C., 21, 22, 24, 29
Huffaker, C. B., 84, 94
Hughes, L. E., 360, 386, 402
Hughes, T. E., 349
Hukusima, S., 85, 86, 94
Humphries, J. W., 384, 397
Hungerford, H. B., 514
Hunt, E. G., 262, 269, 272, 273, 274
Hunt, L. B., 262
Hunter, C. G., 277
Hurlbut, H. S., 351, 352
Husain, M. A., 62
Hutchins, R. E., 94
Hutchison, P. M., 304

I

Ibrahim, M. M., 84, 89
Ide, F. P., 264
Il'enko, V. I., 351
Illies, J., 152, 169
Imam, I. Z. E., 379
Incho, H. H., 232
Ingraham, L. L., 238

Iperti, G., 81, 85, 87, 89, 91, 92, 94, 95
Isakova, N. P., 313
Ise, G. A., 259, 274, 275
Isely, F. B., 60, 61, 62
Ishaaya, I., 17
Isherwood, F., 426, 435
Ishizaka, K., 324
Ives, W. G. H., 212, 216, 222, 223

J

Jackson, C. H. N., 422, 423
Jackson, E. B., 381, 382
Jackson, R. D., 313
Jackson, R. L., 335
Jacobs, W., 495, 508, 513
Jacobs-Jessen, U. F., 445
Jacobson, L. A., 37
Jacobson, L. H., 60
Jadin, J., 359
Jaeger-Draafsel, E., 266
Jahn, T. L., 66
Jakway, J. S., 473, 477
Jamieson, H. C., 333
Jander, R., 445, 446, 459, 518, 519
Janssens, P. G., 380
Jantz, O. K., 60
Jaques, R., 335, 338, 339
Jaques, R. P., 313
Jarvis, R., 520
Jeannel, R., 150
Jean-Prost, P., 439
Jeffs, K. A., 259, 261
Jellison, W. L., 356, 366
Jensen, O. M., 335
Jeppson, L. R., 133, 144
Jesser, M. J., 133, 144
Jielof, R., 458
Jinks, J. L., 477
Johns, D. L., 422
Johnson, C. G., 20, 29, 32, 34
Johnson, E. R., 229, 242
Johnson, F. L., 37
Johnson, J. H., 333
Johnson, N. E., 128, 131, 132, 136, 144, 215
Johnson, W. B., 425, 426
Johnston, H. B., 60
Jones, J. C., 45
Jones, M. D. R., 511
Jones, P. A., 215
Jones, R. H., 354
Jordan, A. M., 423, 424, 425, 426, 427, 431, 433
Jordan, H., 49
Jorgensen, C. D., 386
Joyce, C. R., 389
Joyce, R. J. V., 61
Judenko, E., 128, 134, 138, 141, 144

K

Kachkouli, A., 295
Kahn, M. C., 495, 504, 511
Kailides, D. S., 131
Kaiser, E., 336
Kaiser, M. N., 379, 394, 402
Kallman, B. J., 262, 269, 273
Kalmus, H., 458, 519
Kalra, S. L., 402
Kaluszyner, A., 248, 249
Kamal, M., 84
Kamiya, H., 79
Kanervo, V., 84, 86, 91
Kapler, J. E., 208
Kartman, L., 334
Kasai, T., 251
Katin, P., 257
Kaufmann, T., 60, 61, 66, 69, 70
Kawamura, R., 360
Kearby, W. H., 128, 131, 137, 144
Kearns, C. W., 229, 231, 233, 243, 245, 246, 247, 249, 250, 251, 252
Keenan, G. I., 260, 276
Keenleyside, M. H. A., 271
Kehat, M., 85, 86, 87, 89, 94
Keith, J. A., 272, 275
Keith, J. O., 272, 274
Kellen, W. R., 295
Kelly, G. D., 62
Kennedy, D., 458
Kennedy, J. S., 65, 66, 474, 496
Kennedy, R. C., 349, 352
Kenten, J., 17
Kerr, W. E., 450, 451, 504, 519, 520
Kerswill, C. J., 269, 271
Kesarev, I. P., 358, 380
Kessler, J., 333
Kessler, S., 481, 491
Kettle, D. S., 354
Kettlewell, H. B. D., 489
Kevan, D. K., 504
Key, K. H. L., 65
Keynes, R. D., 46
Khachatria, L. A., 306
Kiigemagi, V., 262, 263, 269, 270
Kilby, B. A., 51
Kimmins, D. E., 173, 178, 180, 181, 201
Kimura, T., 247, 248
Kinard, W. S., 313
King, L. C., 165
Kinghorn, J. M., 144
Kingsolver, J. M., 194
Kingston, J. R., 351, 352
Kirk, R., 400
Kirkpatrick, M. E., 257
Kiselev, R. I., 360
Kitaoka, M., 360
Kiyoku, M., 266, 267
Klassovsky, L. N., 367
Klausnitzer, B., 90
Klein, H. A., 87, 91
Klomp, H., 208
Klopfer, P. H., 488
Knight, F. B., 207-28; 208, 210, 212, 217, 222, 223
Knight, K. L., 388
Knight, W. B., 334
Knutson, H. C., 60, 61
Knyvett, A. F., 405
Koblitsky, L., 260
Koch, A., 114, 118
Koch, H. S., 48
Koch, R., 362
Koehler, C. S., 131, 143
Kohls, G. M., 352, 356, 381, 382, 386, 387, 388, 389, 393, 403, 404, 406
Koide, T., 87
Kolderie, M. Q., 31
Kondrashkina, K. I., 367
Koopman, K. F., 487
Kordová, N., 349, 358, 359, 380
Körner, I., 440
Korshunova, O. S., 357, 358, 380, 390, 391, 393, 396
Koshanchekov, E. V., 69
Kosikowski, F. V., 336
Kostetskii, N. V., 402
Kotsinyan, M. E., 390, 392, 396
Kozlowski, T. T., 132
Kozmycz, S., 337, 341
Kramer, P. J., 132
Kratky, O., 446
Kreasky, J. B., 71
Kreidl, A., 495
Kreuger, H. R., 243
Krieg, A., 287, 288, 293, 294, 295, 309, 378
Krishnan, K. V., 360
Krontovskaya, M. K., 390, 394
Krupina, Z. N., 402
Kryl'cov, A. I., 80
Krywienczyk, J., 306
Kuang-Leih, J., 406
Kudelina, R. I., 357, 390
Kuenen, D. J., 93, 266
Kuiper, J. W., 458
Kulagin, S. M., 357, 390, 393, 395, 402
Kulman, H. M., 144
Kumada, N., 360

Kuntz, J. E., 208
Kunze, F. M., 277
Kurir, A., 84, 85
Kurstak, E., 313
Kuseltan, I. V., 396
Kushner, D. J., 292, 304
Kutsch, W., 480
Kuwabara, M., 458
Kuwada, A., 258
Kvitko, N. V., 392

L

Labaw, L. W., 303
Labib, A., 379
Lacher, V., 462
Lackman, D. B., 356, 357, 360, 380, 381, 383, 384, 390, 394, 404, 405, 406
La Du, B. N., 236, 238, 241
LaDuca, P. J., 329
La Forge, F. B., 232
Lagerberg, T., 115
Lahille, F., 388
Lamb, J. T., 382
Lambrecht, F.-L., 423
Lamontellerie, M., 401
LaMotte, L. C., 349, 353
Lamphrey, H. F., 427
Lancaster, J. L., Jr., 355
Lane, C., 505
Lang, R., 237, 342
Langer, B., 473
Langford, G. S., 65
Langlois, C., 329, 332, 333, 337, 340, 341
Langridge, J., 15, 16
Langridge, W. P., 434
Larsen, E. B., 20
Larson, C. L., 383, 389
Lauer, G. J., 258, 259
Laug, E. P., 277
Laughlin, R., 21
Laurent, J., 434, 435
Lauterbach, P. G., 223
Lavigne, R. J., 62
Lavillaureix, J., 353
Lawrence, W. H., 136
Leach, J. G., 110
Lebedev, A. D., 350
LeBreton, R., 276, 277
Lecadet, M., 301, 302, 304, 305, 306
Lecomte, J., 450
Le Corroller, Y., 288
Lee-Jones, F., 425, 426, 427
Lees, A. D., 36, 37, 87
Legkodimova, K. V., 390, 393, 395
Lenhardt, N. J., 129, 130, 131, 143
Leroux, E. J., 278
Leston, D., 497, 506, 514
Lestoquard, F., 360
Leuck, D. B., 260, 263
Levinson, Z. H., 71
Levita, B., 498
Lewallen, L. L., 229, 246, 248, 249, 250, 295
Lewis, E. A., 352
Ley, H. L., Jr., 382
Leydig, F., 113, 117
Lhoste, J., 119
L'Hoste, J., 299, 300, 302, 309
Lichtenstein, E. P., 259, 260, 263
Liesenfeld, F. J., 505
Liles, J. N., 294
Lillie, R. D., 382
Lilly, J. H., 259
Lin, S., 25, 27, 29, 33, 34
Lindauer, M., 439-70; 439, 441, 442, 443, 444, 445, 447, 448, 450, 451, 454, 458, 459, 460, 461, 462, 481, 504, 518, 519, 520
Linder, P. J., 127, 128
Lindquist, A. W., 230
Lindquist, D. A., 128, 135
Ling-Yi, C. P. K., 406
Link, R. P., 262, 276
Linzen, B., 450
Liotta, G., 94
Lipke, H., 245, 246, 247, 248, 249, 250, 251
Lisk, D. J., 260, 276
Litschauer, V., 116
Littig, K. S., 386
Little, F., 520
Lloyd, C. J., 234
Lloyd, J. E., 500, 508
Lloyd, L., 425, 426
Locher, F. J., 266
Lockie, J. D., 272, 274
Loew, J., 351
Loher, W., 486, 498, 504, 508, 511
Lord, K. A., 17, 243
Lord, R. D., Jr., 389
Lorenz, K. Z., 471
Loveless, M. H., 335, 339
Lovell, J. B., 16, 247
Lowe, J., 258
Luckmann, W. H., 264
Luitjes, J., 208
Lundberg, G., 115
Lüscher, M., 498
Lusis, Ya. Ya., 79, 80, 82, 83
Lutz, A. E., 352
Lutz, F. E., 495
Lysenko, O., 289
Lyskovtsev, M. M., 390, 391, 392, 393

M

McAlpine, J. F., 195
McCarthy, H. R., 257
McClearn, G. E., 473
McComb, D., 215
McConnell, E., 289, 293, 295
McCormick, W. F., 335
McCroan, J. E., 383
McCrory, B. R., 354
McDermott, F. A., 480
McDowell, R. E., 277
McGovern, J. P., 340
McGugan, B. M., 208
Maćićka, O., 394
McKee, M. T., 388
Mackensen, O., 267
Mackie, T. T., 360
McKiel, J. A., 385
McLachlan, R., 170
MacLaren, W. R., 333
McLean, D. M., 348
McLean, J. A., 340
McLellan, C. W., 67
MacLeod, C. F., 296
MacLeod, J., 347, 350
MacPhee, A. W., 35
McPhee, R., 399, 400
Madden, A., 230
Madge, D. S., 26, 29, 34
Madge, P. E., 26, 33
Maeta, Y., 86, 87
Magalhaes, O., 384
Magnus, D. B. E., 489
Mahdihassan, S., 106
Mahoney, C. H., 257
Maier-Bode, H., 260
Maitlen, J. C., 274, 276
Maksymiuk, B., 304
Malakatis, G., 401
Malke, H., 110, 111, 114, 117, 118
Mallette, R. D., 273
Mani, M. S., 89
Manning, A., 471-94; 473, 477, 478, 480, 481, 490
Mape, C. D., 504, 507, 508
March, R. B., 130, 134, 229, 233, 235, 242, 246, 248, 249, 250, 251
Marchette, N. J., 403, 404
Marchoux, E., 352
Marcu, O., 79
Markl, H., 445
Marler, P., 497, 498
Marlier, G., 180, 181
Marriner, T. F., 80, 86
Marth, E. H., 257
Martin, F. W., 273
Martin, H., 460, 461, 462, 463, 464
Martouret, D., 287, 298, 299, 300, 301, 302, 307, 309,

313, 315
Marty, R. J., 210
Martynov, A. B., 176
Martynova, D. M., 191
Masaki, S., 19, 36
Maschwitz, U., 450, 452
Mason, H. M., 16, 17
Mason, J. H., 397, 398
Materu, M. E. A., 299
Mather, K., 477
Mathias, A. P., 338, 339
Mathiesen-Käärik, A., 115
Mathre, D. E., 111
Mathur, C. B., 62
Matsummura, F., 243, 244, 245
Mattes, O., 299
Matteson, J. W., 29
Matthée, J. J., 17, 23, 34
Matthysee, J. G., 144, 313
Mattson, A. M., 246, 250
Mavros, A. J., 363
May, D. S., 257, 258
Mayr, E., 471, 487
Mazokhin-Porshniakov, G. A., 65, 66
Mechalas, B. J., 295, 296, 309
Meder, E., 460
Medion, J., 472, 478
Megaw, J. W. D., 402
Mehrota, K. N., 17
Meissner, R., 80, 82
Melin, E., 115
Menn, J. J., 309
Mentzer, C., 67, 68
Menzer, R. E., 135, 242
Mer, G. G., 246, 248, 250
Merinov, V. A., 393
Merrell, D. J., 473
Merrill, D., 185, 483
Mersereau, G. S., 272, 274
Mesehia, G., 48
Messenger, P. S., 20, 21, 23, 24, 27, 30, 31, 33, 37
Metcalf, R. L., 229-56; 127, 128, 130, 134, 229, 230, 232, 233, 234, 235, 236, 237, 238, 239, 240, 241, 242, 246, 248, 249, 250, 251
Metschl, N., 461
Meyer, W., 93, 94
Michaeli, D., 247
Michelsen, A., 485, 486
Michie, M. D., 110
Michl, H., 336
Middlekauf, W. W., 62
Miesse, M. L., 384
Milaire, H., 287, 307, 313
Milby, T. H., 257
Miles, J. A. R., 352
Milford, E. L., 328
Milkman, R., 17
Millar, S. E., 296
Miller, C. A., 208, 209, 211, 223
Miller, H. C., 333
Miller, J., 337, 341
Miller, M. S., 352
Mills, P. A., 277
Milne, A., 208
Milne, L. J., 170
Milne, M. J., 170
Milzer, A., 354
Mischenko, N. K., 393
Miskus, R., 235, 237, 247
Misra, S. P., 70
Mitchell, J. W., 127, 128
Mittlestaedt, H., 519
Miura, T., 389
Miyajima, M., 360
Modiano, A., 246, 248, 250
Mohn, M. H., 259, 274, 275
Mohr, C. O., 389
Monro, R. E., 302, 303, 306
Moore, B. P., 233
Moore, G. J., 349
Moore, N. W., 257, 272, 275, 276
Moore, T. E., 488, 495, 504, 507, 508, 511, 512, 513, 516, 517
Moorefield, H. H., 234, 237, 241, 247, 248, 249, 250, 251, 252
Mooser, H., 361, 363, 379
Morcos, E. G., 379
Morello, A., 247
Morgan, F. D., 116, 120
Morgan, L. W., 260, 263
Morley, H. V., 259
Morris, D., 471
Morris, K. R. S., 424
Morris, R. C., 128
Morris, R. F., 207, 208, 209, 210, 211, 222
Morrison, H., 425, 426
Morse, A. P., 60
Morse, R. A., 336
Mosely, M. E., 173, 178, 180, 181, 201
Moshkovsky, Sh. D., 118
Moskwin, I. A., 364
Moter, G., 81, 85, 87, 89, 91
Mott, D. G., 208, 210
Mountford, M. D., 131
Moursi, A. A., 84
Moye, W. C., 264
Mrak, E. M., 107, 116
Mueller, H. L., 335
Mugrage, E. R., 352
Mulkern, G. B., 59-78; 59, 60, 61, 62, 66, 67, 70, 71, 78
Muma, M. H., 85, 93
Mumma, R. O., 261
Muncy, R. J., 267
Munger, F., 27, 29
Munroe, E., 193
Munroe, E. G., 329
Murphy, E. F., 257
Murphy, R. T., 259
Murphy, W. J., 383
Murray, E. S., 381
Mussgay, M., 353
Myers, M. A., 333
Myers, P. A., 332
Myrdal, G. R., 259, 260

N

Nadel, D., 87, 91
Nagasawa, S., 247
Naka, K., 458
Nakatsugawa, T., 242
Nardy, R. V., 387
Nason, E. R., 222
Nayar, J. K., 68
Nedel, J. O., 440, 444
Nedergaard, S., 46
Neese, V., 448
Nefedov, N. I., 80
Neghme, A., 247
Neilson, G. H., 405
Neitz, W. O., 360, 397, 398
Nelissen, F. X., 20
Nelson, D. B., 348
Nel'zina, E. N., 367
Neman, M., 246, 248, 250, 251
Neogy, K. N., 360
Netsky, G. I., 392
Nettles, W. C., 267, 268
Neuhaus, W., 463
Neumann, W., 336
Neunzig, H. H., 504, 507, 508
New, D. A. T., 519
New, J. K., 519
Newhouse, V. F., 384, 385
Newsom, L. D., 257-86; 265, 267
Newton, R. C., 60
Nguyen-Van-Ai, 402
Nicholson, A. J., 208
Nicholson, H. P., 258, 259
Nickell, L. G., 304
Nicol, J., 128, 144
Nicolle, C., 361, 363
Nielsen, A., 176, 177
Nielsen, E. T., 20, 25, 32
Nikitin, A. M., 402
Nikitina, N. A., 390, 391
Nir, Y., 353
Nohara, K., 89, 94, 95

Nolte, H.-W., 118
Norman, P. S., 325
Norris, D. M., 127-48; 128, 129, 130, 131, 132, 133, 134, 135, 136, 137, 139, 140, 141, 144
Norris, J. R., 289, 290, 291, 292
Norris, M. J., 33
North, M. E. W., 498
Northcott, F. E., 70
Nosek, J., 394
Novák, K., 83, 93, 94
Nowosielski-Slepowron, B. J. A., 19
Nunberg, M., 120

O

Oakland, G. B., 216
O'Brien, R. D., 128, 135, 136, 229, 242, 243, 244
O'Connor, R., 335, 336, 340
Ode, P., 313
Ogita, Z., 251
O'hara, P. L., 397
Ohnishi, E., 16
Okamoto, H., 85, 86
Okubo, K., 360
Okumura, T., 360
Oliphant, J. W., 381, 384
Oliver, A. D., Jr., 267
Olsufiev, N. G., 366, 392
Omardeen, T. A., 388
Omran, F. M., 379
Ono, T., 94
Onsager, J. A., 60
Onyearu, A. K., 27
Oppenoorth, F. J., 244, 245, 247, 252
Ordman, D., 335
Ormsbee, R. A., 377, 379, 394
Orr, L. W., 207
Ortiz Mariotte, C., 385
Osborn, D. J., 379, 394
Osborne, D. J., 69
Oser, B. L., 277
Osgood, H., 328, 329
Osman, M. F., 235, 236
Otto, F., 448
Owen, C. R., 367

P

Paillot, A., 105
Pain, J., 440
Painter, R. H., 60
Pakshin, M. F., 402
Palmer, M. A., 79
Pant, R., 17
Pantyukhov, G. A., 94
Paradis, R. O., 265
Park, O., 207, 209, 211
Park, O. W., 475
Park, T., 207, 209, 211
Parker, D. C., 223
Parker, J. R., 59, 60, 65, 68
Parker, R. R., 356, 366, 367, 368, 381, 384, 387, 388, 398, 404, 405
Parker, R. T., 382
Parkes, A. S., 498
Parkin, E. A., 120
Parlato, S. J., 326, 327, 328, 329
Parsons, D. S., 55
Patiño, L., 385
Patiño-Camargo, L., 385
Patterson, J. T., 490
Paul, J. H., 385
Paul, J. R., 354
Pavlov, P., 367, 399, 401
Pavri, K., 350
Payne, D. W., 16
Payzin, S., 380, 401
Pchelkina, A. A., 359
Peleg, J., 352
Pener, M. P., 18
Perdeck, A. C., 488, 504, 511
Perlman, F., 327, 328, 329, 330, 333, 335
Perri, S., 384
Perry, A. S., 245, 246, 250
Perry, M. M., 488
Pesek, J., 350
Pestenko, V. I., 402
Peters, W. L., 169, 200
Peterson, D. G., 329
Petit, C., 472
Petrischeva, P. A., 354, 359, 391
Petrov, A. A., 390, 391, 392, 394
Petrov, V. G., 366, 367
Petrova, S. P., 351, 353
Petrunkevitsch, A., 53
Pfadt, R. E., 61, 62, 67, 70
Phaff, H. J., 107, 116
Philip, C. B., 348, 354, 359, 360, 366, 367, 368, 378, 379, 381, 383, 384, 386, 387, 388, 389, 393, 400, 402, 404, 405, 406
Philip, C. P., 378
Philleo, W. W., 239, 247
Phillips, J. E., 47, 48, 49
Philpott, D. E., 458, 459
Pichler, H., 445
Pickens, E. G., 356, 357, 360, 380, 384, 394, 405
Pickens, L. G., 137
Pickett, A. D., 278
Pickford, R., 65, 70
Pictet, F. J., 170
Pielou, D. P., 65, 66, 266
Pienkowski, R. L., 87
Pierantoni, V., 111
Pierce, G. W., 495, 506, 511
Pietsch, L. R., 389
Pigden, W., 302
Pijper, A., 398, 399
Pillia, M. K. K., 51
Pimentel, D., 208
Piontkovskaya, S. P., 357, 358, 380, 390, 391, 393, 394
Pisano, J. J., 339
Pittendrigh, C. S., 488
Plapp, F. W., 237, 243, 244
Plateau, F., 49, 53
Plaut, H. N., 87, 91
Polissar, M. J., 37
Polivka, J. B., 259
Polonovski, J., 17
Polulyakh, P. A., 367
Pomerantzev, B. I., 393, 394
Pope, J. H., 405
Pope, R. B., 223
Popham, W. L., 257, 260
Popov, A., 399
Popov, P., 86
Popov, V. M., 394
Portman, R. W., 387, 389
Potter, C., 17, 93
Power, R. J. B., 430, 431, 432
Powning, R. F., 43
Pradhan, S., 25, 27, 28, 79
Prado, J. L., 339
Pratt, E. P., 400
Pratt, H. D., 386
Pratt, J. J., Jr., 246, 248, 249
Prentice, R. M., 222
Preoblazhensky, A. A., 392, 394
Pretzmann, G., 351
Price, E. G., 381
Price, W. H., 354, 355, 356, 381, 383, 384, 406
Prickett, C. S., 277
Pringle, J. W. S., 495, 506, 514
Priore, R., 79, 94
Prochnow, O., 495
Prodan, Z. G., 358, 380
Prokhorov, M. I., 287
Promasov, V. R., 513
Proreshnaya, T. L., 390, 392, 396
Pruess, K. P., 62, 67, 70
Pruzansky, J., 333
Pryor, M. G. M., 327
Pulliainen, E., 89

Putman, W. L., 81, 82, 84, 86, 87, 88, 89, 91, 93, 266
Putnam, L. G., 65, 66, 70
Puttarudriah, M., 89
Pylenko, M. S., 367

Q

Quaraishi, M. S., 297

R

Rabaud, E., 505
Raby, W. T., 382
Radda, A., 351
Radice, M., 135
Radzievskaya, S. B., 84, 90
Rageau, J., 401
Rajagopal, P. K., 429
Rakshpal, R., 35, 36, 37
Ramsay, A. O., 483
Ramsay, J. A., 44, 45, 47, 48, 49
Ramsey, R. L., 383
Randell, D. D., 17
Randolph, N. M., 260
Rao, K. N. A., 402
Rao, T. R., 350
Rapoport, L. P., 390, 392, 396
Rapp, D., 329, 330, 331
Ratcliffe, D. A., 272, 274, 275
Ratcliffe, F. N., 401
Raun, E. S., 299, 313
Rautenstein, Ya. I., 306
Rawlings, G. B., 116
Raychaudhuri, A., 16
Raymer, W. J., 335
Razumova, V. N., 392
Read, J. P., 259
Rediske, J. H., 128, 131, 132, 136, 144
Reeb, E., 353
Reeks, W. A., 223
Reeves, W. C., 353
Regen, J., 495, 499, 504, 508, 511
Řeháček, J., 348, 349, 350, 351, 352, 358, 359, 378, 380
Reid, R. W., 115
Reid, S., 117
Reisman, R. E., 332
Reiss-Gutfreund, R. J., 354, 358, 379, 400
Remisch, F., 82
Remmenga, E. E., 223
Renner, M., 440, 450, 460
Renner, P., 434, 435
Rennerfeld, E., 115
Reusse, U., 359
Reuter, S., 248, 251
Reynolds, H. T., 127, 128, 129
Reznik, P. A., 393
Rhoola, K. D., 338, 339
Richards, A. G., 16, 17, 25, 27, 28, 29, 31, 32, 33, 34, 289, 293, 295
Richards, O. W., 61, 208
Richardson, A., 277
Richardson, J. A., 132
Richardson, L. A., 257, 262, 276, 277
Ricketts, H. T., 354
Rickman, L. R., 399, 400
Riegert, P. W., 17, 65, 66, 70
Ries, E., 114
Riley, C. V., 60
Riordan, D. F., 60, 504, 508
Ripper, W., 114
Ripper, W. E., 127, 128, 129, 131, 257, 264
Rivard, I., 19, 33
Roberts, F. H. S., 405, 406
Roberts, J. I., 399, 400
Roberts, P. A., 229, 234, 237, 238
Robinson, A. G., 84
Robinson, B. N., 400
Robinson, G. G., 435
Robinson, J., 277
Rocha Lima, H., 361
Roche, A., 119, 299, 300, 302
Rockstein, M., 15, 17
Rockwell, E. M., 328
Rodaniche, A., 385
Rodgers, D. A., 473
Rodriguez, J. G., 131
Roeder, K. D., 504, 505, 520
Roffey, J., 65
Romanenko, E. V., 513
Romanova, V. P., 366
Roonwal, M. L., 61, 62
Roscoe, E. J., 386
Rosen, D., 87, 91
Rosenberg, M., 359
Rosenbrook, W., Jr., 335, 336, 340
Rosický, B., 394
Ross, H. H., 169-206; 169, 170, 171, 172, 178, 182, 190, 191, 192, 193, 194, 195, 196, 200, 201, 202, 483, 484
Ross, I. C., 405
Roth, L. M., 504, 508, 511
Rothenbuhler, W. C., 474
Rothschild, M., 92, 505
Roussel, J. S., 265
Roux, M., 402
Rozeboom, L. E., 349
Rubakin, P. E., 402
Rubzov, I. A., 60
Rudall, K. M., 327
Rudd, R. L., 257, 264, 269, 272, 273, 276, 278
Rudinsky, J. A., 131, 132
Rumbold, C. J., 115
Rumbold, C. T., 107, 115
Rumreich, A., 382
Ruppel, R. F., 84, 94
Ruscinsky, A., 89
Rush, W. A., 349
Ruttner, F., 439, 440
Ruttner, H., 440
Ruttner, M. F., 440
Ryan, F. J., 27
Ryan, R. B., 20, 23, 33

S

Sabin, A. B., 354
Sacktor, B., 16
Safty, A., 379
Sailer, R. I., 93, 264
Saito, Y., 367
Sakai, S., 229
Sakurai, H., 86
Salisbury, L. E., 400
Salkeld, E. H., 15, 17
Salles Gomes, L., 385
Salmon, M., 504, 508, 514
Salt, R. W., 37
Sanborn, R., 16
Sandars, D. F., 405
Sanderson, M. W., 70
Sanford, E. W., 49, 53
Santi, R., 135
Sarasin, G., 262, 350
Sartbaev, S. K., 367, 394
Satchell, J. E., 131
Sato, M., 85, 86
Sattler, W., 186, 187
Saunders, D. S., 425
Savitskaya, E. P., 390
Savoiskaya, G. I., 79, 83, 87, 88, 90, 91, 93, 94
Saxena, K. N., 51
Schachter, M., 335, 338, 339
Schafer, M. L., 257, 262, 276, 277
Scharff, D. K., 61, 62
Scharrer, B., 53
Schedl, K. E., 107, 115
Schedl, W., 120
Schenk, J. A., 215
Schick, G., 333
Schieber, H., 364
Schiefelbein, J. W., 95
Schilder, F., 79, 80
Schilder, F. A., 84
Schilder, M., 84
Schlinger, E. I., 83, 93, 94

Schlüter, C., 53
Schmid, F., 179, 181, 193, 200, 201
Schmid, K., 135
Schmidberger, J., 106
Schmidt, K. P., 207, 209, 211
Schmiege, D. C., 223
Schneider, D., 462, 489
Schneider, F., 65
Schneiral, T. C., 500
Scholze, E., 445
Schomann, H., 110, 114, 118
Schonbrod, R. D., 239, 247
Schrader, G., 241
Schread, J. C., 128, 134, 143
Schreindler, E., 446
Schricker, B., 461
Schröder, C., 80
Schulz, K. R., 259, 260, 263
Schulze, P., 394
Schwartz, H. J., 335
Schwartz, R. A., 367
Schwartz, W., 110, 111, 114, 117, 118
Schwartzkopf, J., 504
Schwarz, R., 463
Schweiger, E. M., 446
Schwerdtfeger, F., 208
Schwetsova, O. I., 288, 303, 306, 307
Scott, J. P., 472, 477
Seddon, H. R., 405
Sehon, A. H., 325
Seifert, G., 266
Sekhon, S. S., 462
Semenov, H., 326, 334, 335
Sem'yanov, V. P., 82, 85, 90, 95
Sérié, C., 354
Sethi, S. L., 81, 87, 93
Setnikar, L., 48
Shaiman, N. S., 390, 392
Shapiro, M. I., 390, 391, 392, 393, 394, 395
Shaughnessy, H. J., 354
Shaw, J., 45, 47, 48
Shaw, J. G., 20
Shaw, K. C., 506, 511, 513
Shearer, D. A., 450
Shed, J., 269, 270, 271, 273
Sheldon, J. M., 333
Sheldon, M. G., 259, 274, 275
Shenefelt, R. D., 215
Shepard, C. C., 383
Sheppard, P. M., 474
Sherman, W. B., 325
Shestakov, V. I., 395
Shifrine, M., 107, 116
Shimizu, M., 334
Shirai, A., 384
Shortt, H. E., 349, 402
Shotwell, R. L., 60, 65
Shuel, R. W., 439, 459
Shulman, C. E., 337, 341
Shulman, S., 323-46; 329, 330, 331, 332, 337, 338, 339, 341
Shulov, A., 18
Shyamala, M. B., 52
Sibley, F., 498
Sidorov, V. E., 357, 396
Siegal, S., 335
Sigalas, R., 401
Sikes, R. K., 348, 353
Sikka, H. L., 61
Silich, V. A., 393, 395
Silva-Goytia, R., 385, 389
Silvey, S. D., 21
Simond, P. L., 352
Simpson, G. G., 496
Simpson, J., 441, 452
Singh, K. R. P., 350
Singh, M. P., 24, 25
Sivertzev-Dobzhansky, N. P., 80
Skilling, D. D., 208
Skoog, F. E., 61, 67, 68
Skottsberg, C., 150
Skrenting, R. F., 260, 263
Skrynnik, A. N., 365
Skuhravý, V., 83, 93, 94
Slifer, E., 462
Slobodkin, L. B., 208
Sluss, R. R., 93, 95
Smadel, J. E., 382, 406
Smale, B. C., 127, 128
Smirnoff, W. A., 81, 296, 303, 304
Smith, B. C., 79, 82, 85, 86, 92, 95
Smith, C. E. G., 349, 350, 364
Smith, C. N., 387
Smith, D. J. W., 359
Smith, D. S., 70
Smith, F. E., 208, 458
Smith, H. S., 208
Smith, J. M., 473, 478
Smith, M. B., 352, 354
Smith, M. E., 477
Smith, P. M., 93
Smith, R. D., 272
Smith, R. F., 92, 93, 94, 262, 278
Smith, R. O. A., 360
Smith, R. W., 60
Smith, S. G., 81
Smith, W. E., 222
Smorodintsev, A. A., 351
Snetsinger, R. J., 383
Snipes, B. T., 43
Snodgrass, R. E., 495
Snyder, J. C., 381, 382
Soldatov, G. M., 391
Solly, S. R., 243
Soloviev, V. D., 350, 351
Sømme, L., 19, 35
Somov, G. P., 390, 391, 392, 393, 394, 395
Sondak, V. A., 351, 353
Sonenshine, D. E., 382, 384, 389
Spark, A. N., 84
Spector, W. G., 302
Spencer, F. J., 382
Spencer, R., 381
Spencer, R. R., 356, 366
Sperber, E., 55
Speroni, G., 248, 250
Speyer, W., 89
Spiess, E. B., 473
Spieth, H. T., 483, 485, 490
Spiller, D., 251
Spooner, J. D., 508, 513
Spoor, A., 458
Springer, P. F., 267, 272, 274
Squire, F. A., 436
Stafford, E. M., 134
Stalheim, A., 60
Stanley, J., 19, 20, 21
Stannard, L. J., 389
Stark, R. W., 212, 222, 223
Starkoff, O., 401
Starr, D. F., 20
Starý, P., 83, 93, 94
Stay, B., 46, 52, 54
Steiner, P., 266
Steinhaus, E. A., 37, 107, 117, 118, 377, 387
Stern, V. M., 262, 278
Stewart, J. D., 336
Stickel, L. F., 272, 273, 274, 275
Stickel, W. H., 272, 273, 274, 275
Stier, R. A., 335, 340
Stier, R. F. E., 335
Stillwell, M. A., 116, 120
Stitt, P. A., 260, 263
Stockman, S., 350
Stoenner, H. G., 356, 357, 360, 380, 381, 382, 390, 397, 404, 405, 406
Stolyarov, M. V., 60, 69
Stone, B. C., 450
Stone, W. S., 490
Strickland, A. H., 207
Strickland, R. K., 386
Stride, G. O., 489
Strohmeyer, H., 119

Strouhal, H., 79, 80
Strübing, H., 504
Struble, G. R., 215
Sturm, H., 171
Štys, P., 83, 93, 95
Suanraksa, S., 27, 28, 32
Sudia, W. D., 348, 353
Sůlc, K., 113
Sullivan, C. R., 35, 224
Sullivan, W. N., 232
Sumerford, W. T., 248, 250
Sun, Y. P., 229, 242
Sutcher, V., 235, 237
Sutcliffe, D. W., 47
Sutter, G. R., 299
Sutton, E., 348
Suvorova, L. V., 393, 395
Suzuki, R., 247, 252
Swift, H. H., 264
Swift, J. E., 258
Swirski, E., 94
Sysoev, A. T., 95
Syverton, J. T., 353, 354
Szumkowski, W., 86

T

Tahori, A., 229, 246, 248, 249, 252
Takata, N., 17
Takeda, S., 85, 94
Tamaka, M., 86
Tamaki, H., 266, 267
Tamiya, T., 360
Tamura, Z., 339
Tanada, Y., 299
Tarasevich, I. V., 402
Tarzwell, C. M., 258
Tatarinova, L. G., 351
Tauber, O. E., 43, 70
Taylor, A., 272, 275
Taylor, C. W., 388
Taylor, R. M., 351, 352
Teasley, J. T., 258, 259
Technau, G., 114
Tefft, E. R., 241
Telenga, N. A., 79, 83, 84
Telford, A. D., 37
Templin, E., 128
Teng, K. F., 393
Terr, A. I., 340
Terriere, L. C., 239, 247, 262, 263, 269, 270
Thain, E. M., 338
Theiler, G., 398, 399, 400
Theodor, O., 364
Thomas, E. S., 476, 495, 510
Thomas, H. A., 85, 93
Thomas, J. I., 352
Thomas, L. A., 353
Thomas, O. C., 340
Thompson, G. H., 106
Thompson, H. E., 128, 131, 141, 144
Thompson, M. J., 290, 292, 294, 295, 296
Thompson, R. W., 477
Thompson, S. J., 257
Thompson, W. R., 84, 86, 208
Thomsen, M., 20
Thorpe, W. H., 498
Thorsteinson, A. J., 59, 68, 297
Thrailkill, F. B., 356, 388
Till, W. M., 349
Tillyard, R. J., 191
Timoféeff-Ressovsky, H. A., 80
Timoféeff-Ressovsky, N. W., 79, 80
Timofeev, A. F., 367
Tinkham, E. R., 60
Tinley, K. L., 430
Tobie, J. E., 383
Toczek, D. R., 60, 62
Todd, J. L., 362
Tokmakoglu, O., 93
Tonking, H. D., 399, 400
Topping, N. H., 382
Toumanoff, C., 288, 292, 302
Tower, B. A., 313
Townes, H. K., 264
Townsend, G. F., 439, 459
Trapido, H., 266, 403, 404
Traylor, M. A., 401
Treat, A. C., 505
Treat, A. E., 504, 505
Treece, R. E., 144
Treherne, J. E., 43-58; 43, 44, 45, 46, 50, 51, 52, 54
Trembley, H. L., 386, 387, 388
Trimbeyer, G. W., 260, 276
Trjasko, W. W., 439
Troup, J. M., 398, 399
Tryon, R. C., 477
Tsuda, K., 85, 86
Tsukamoto, M., 247, 249, 250, 252
Tuxen, S. L., 1-14; 495
Tyron, E. H., 133, 144

U

Udenfriend, S., 339
Uichanco, L. B., 118
Ulmer, G., 170, 191
Underwood, G. R., 117
Unterstenhöfer, G., 128
Unzicker, J. D., 194
Urbach, E., 333
Urquhart, F. A., 60

V

Vago, C., 308
Valin, C. V., 262, 269, 273
Van Asperen, K., 244, 245
Van Damme, E. N. G., 303, 311
Van den Berghe, L., 423
Van den Bosch, R., 83, 93, 94, 95, 278
Van der Kloot, W. G., 37, 186, 482, 483
Vanderplank, F. L., 436
van Emden, H. F., 82, 83, 92, 93, 95
Vankova, J., 287, 295, 307, 313
Van Laan, P. A., 303, 311
Van Oyen, T., 508
Van Tassell, E. R., 507
Van Tienhoven, A., 498
Van Tongeren, H., 351
Varela, G., 385
Varma, M. G. R., 347-76; 349, 361, 364
Vattier, G., 436
Vermeil, C., 353
Vernon, E. H., 264
Vestal, A. G., 60
Viado, G. B., 135
Vianna Martins, A., 386
Vinson, J. W., 378
Vité, J. P., 116, 132, 144
Volchanetskaya, G. I., 360
Volkova, A. A., 367
Von Aufsess, A., 464
Von der Wall, W., 474, 483
Von Frisch, K., 439-50; 224, 454, 457, 458, 459, 462, 463, 518, 519
von Höhnel, F., 116
Von Hörmann-Heck, S., 476
Von Zwehl, V., 453, 458
Vorhies, C. T., 60
Voshchakina, N. V., 390, 391
Voute, A. D., 208

W

Waddington, C. H., 488
Wadley, F. M., 223
Wagner-Jevseenko, O., 362, 368
Wakeland, C., 60
Walcott, C., 505
Waldron, I., 514
Walgenbach, D. D., 128, 131, 137, 144
Walker, C. H., 272, 275

Walker, J. B., 400
Walker, K. C., 274, 276
Walker, T. J., 408, 495, 499, 504, 505, 509, 510, 511
Walker, T. M., 269, 270, 271, 273
Wallace, D. R., 35
Wallace, G. K., 66
Wallace, M. M. H., 131
Waloff, N., 61
Waloff, Z., 69
Walzer, E. H., 335
Wanke, L., 445
Warren, G. L., 222
Watanabe, T., 85
Waterhouse, A. T., 335
Waterhouse, D. F., 46, 52, 53, 54
Waterhouse, F. L., 19, 27
Waters, W. E., 209, 215, 216, 219, 222
Watson, W. Y., 117
Watt, K. E. F., 209
Watters, F. L., 34
Way, M. J., 34, 35, 36, 37, 84, 86, 87, 92, 93
Wear, J. F., 223
Webb, S., 116, 120
Webb, W. E., 106
Weber, F. P., 224
Weber, N. A., 111, 120
Webster, J. R., 267
Weed, A., 232
Weekman, G. T., 84
Wehner, E., 454, 455, 456
Weiden, M. H. J., 237, 248
Weih, A. S., 511
Weiser, J., 295
Weismann, L., 93, 94
Weiss, I. M., 478
Weitz, B., 426, 427, 433
Welch, J. R., 422
Wellington, W. G., 66, 208, 224
Wellso, S. G., 266
Wendler, L., 458
Wenner, A. M., 441, 445, 504, 518, 519
Wenzel, F., 266
Werner, G., 446
West, I., 257, 259, 262, 277
West, M. J., 516
Wever, E. G., 511
Weyer, F., 357, 358, 359, 361, 363, 378, 380, 384
Wheatley, G. A., 259
Wheeler, C. E., 382
Wheeler, C. M., 365
Wheeler, W. B., 261
Wheeler, W. M., 111, 120, 500
White, J. S., 404
Whitman, L., 353
Wiackowski, S. K., 94
Wiggins, G. B., 178, 187, 193
Wigglesworth, V. B., 15, 44, 45, 47, 52, 53, 54, 113, 277
Wilbrandt, W., 53
Wilcocks, C., 403
Wiley, R. C., 257
Wilford, B. H., 207
Wilkinson, A. T., 259
Wilkinson, C. F., 233, 234, 235, 237, 238, 239, 240, 241
Wilkinson, P. R., 278
Willett, K. C., 421, 437
Williams, C. M., 32, 186, 482, 483
Williams, G. C., 513
Williams, L. H., 65, 66, 67
Williams, S., 277, 405
Williamson, D. L., 215
Willoughby, D. A., 302
Wills, W., 383
Wilson, B. H., 313
Wilson, C. L., 116
Wilson, C. S., 230
Wilson, D. M., 480
Wilson, E. O., 497, 498, 500
Wilson, H., 230
Wilson, J. G., 260, 261, 263
Wilson, L. F., 214
Wilson, N. M., 116
Wilson, R. A., 259, 274, 275
Winget, C. H., 132
Winn, H., 513
Winteringham, F. P. W., 230, 246
Winton, M. Y., 229, 233, 234, 236, 237, 238
Wiseman, G., 52
Wiseman, R. D., 333
Wishart, G., 504, 508
Wisseman, C. L., 402
Witte, E. J., 383
Wolbach, S. B., 367, 382
Wolff, M. F., 223
Wolken, J. J., 458
Wood, B. J. B., 238
Woodham, D. W., 260, 263
Woodin, W. G., 333
Woodrow, A. W., 475
Woods, L. A., Jr., 262, 272, 273
Woodward, D. B., 389
Woodward, T. E., 381, 382
Woolf, B., 488
Work, T. H., 351, 352
Workman, J. B., 382
Wray, F. J., 132
Wright, B. S., 273
Wright, J. C., 60, 62
Wu, Hsien-Yi, 360
Wylie, H. G., 19, 20, 22, 32, 34, 81, 85
Wynne-Edwards, V. C., 512

Y

Yakhontov, V. V., 79, 89, 95
Yakovlev, M. G., 366
Yamada, S., 85, 94
Yamamoto, T., 194
Yamvrias, C., 298, 310
Yashkul, V. K., 392
Yates, W., 230
Yates, W. E., 257, 260
Yoshimoto, C. M., 155
Young, I. E., 302, 304
Young, J. D., 334
Young, R. G., 248
Young, W. A., 425, 426
Yu, En-Shu, 360
Yun, Y. M., 84, 94
Yvore, P., 434, 435

Z

Zacharuk, R. Y., 33
Zacks, S., 246, 248, 250
Zaslavskii, V. A., 80
Zdrodovskii, P. F., 357, 390, 397, 406
Zelený, J., 93, 94
Zemp, H., 144
Zhmaeva, Z. M., 359, 395
Zimmerman, M. H., 132
Zimmermann, K., 80
Zinsser, H., 358

SUBJECT INDEX

A

Abdomen-waggle, 502
Absorption
  of amino acids, 52-53
  in foregut, 44-46
  from gut, 43-58
  in hindgut, 47-48
  of inorganic ions, 44, 47
  of lipids, 53-54
  in midgut, 44
  of sugars, 49-52
  of water, 44, 47
Absorptive mechanism, 43
Acanthops falcata, 482
Acarus siro, 19
Accessory glands, 88
Aceria sheldoni, 144
N-Acetylglucosamine, 300
Acetylcholine, 17
Acheta, 477
  assimilis, 332
  commodus, 16, 34
Acoustical behavior, 495-526
Acoustical communication, 495-526
Acoustical signals, 500-4
Acromyrmex, 108
Actia villica, 489
Active transport, 45, 49, 53
Activity level of grasshoppers, 55
Adalia
  bipunctata, 79-85, 87-90, 94
  decempunctata, 80, 82, 94-95
  fasciatopunctata, 89
  quadrimaculata, 79
  sexpustulata, 79
Adelges, 108
Adelgidae and fungi, 108
Adenosine, 297
Adonia variegata, 80, 82, 89
ADP, 297
Adult adaptations of Trichoptera, 187-90
Aedes
  aegypti, 44-45, 47-48, 52-54, 247-48, 294-95, 334, 352-53
  detritus, 45
  nigromaculis, 295
  taeniorhynchus, 334
Aerial application of systemics, 143
Aerial surveys and forest insects, 223-24
Aeropedellus clavatus, 62, 69
Aestivation of Coccinellidae, 87
Afrochlus, 157-58, 160
Agapetus, 193, 195, 200
Ageneotettix deorum, 64, 70
Aggregating signals, 498, 508, 511
Aggregations in Coccinellidae, 89-90
Aggressive behavior, 471
Aggressive signals, 500, 513
Agonoderus lecontei, 268
Agria affinis, 51
Alabama argillacea, 265
Alarm
  position of bees, 452
  scent, 450
  signals, 499-500, 506
  sound, 441
  systems of bees, 450
Aldrin, 258-61, 263, 277
Aliesterase, 237, 244-45
Allen's rule, 80
Allergic responses, 323-46
Allethrin, 230, 232
Allodermanyssus sanguineus, 360
Alphitobius laevigatus, 233-34
Amblycorypha uhleri, 503
Amblyomma, 265
  americanum, 366, 387-88, 404
  brasiliense, 356, 386
  cajennense, 356, 359, 386, 388
  cohaerens, 400
  hebraeum, 397-98
  imitator, 388
  lepidum, 358, 379
  maculatum, 360, 404, 405
  marmoreum, 400
  sparsum, 400
  striatum, 356, 386
  testudinarium, 404
  variegatum, 358, 379, 399-401
Ambrosia beetle, 106-7, 116, 119, 120
Ambrosia fungi, 106, 110, 113-14, 116
American foulbrood, 475
Amino acids
  of Bacillus thuringiensis, 304
  and embryogenesis, 17
Anagapetus, 193
Anagasta kuehniella, 33, 298-99, 307, 310, 477
Anaphylaxis, 324-25
Anatis mali, 85
Anatrepsis, 35
Anaxipha, 480
Anisocentropus, 193
Anisolemnia dilatata, 89
Annulipalpia, 174-75, 177, 186
Anobiidae and fungi, 108, 111
Anobium, 108
Anocentor nitens, 385
Anopheles, 45
  aequesalis, 266
  darlingi, 266
  hispaniola, 266
  labrianche, 266
  saccharovi, 266
Anthonomus grandis, 265
Antibiotics and rickettsia, 381-82
Antibodies, 324-26
  and rickettsia, 383, 385
  and typhus, 357
Antibody responses, 332
Antigenic cross-reactions, 341
Antigens, 326, 329
Antipodoeciidae, 174, 180
Antisera, 326
Ant lions and vibrations, 505
Ants
  and alarm scent, 450
  and allergy, 326
  communication in, 498
Anurogryllus, 517
Anurogryllus muticus, 516
Aonidiella aurantii, 29
Aphallara, 108
Aphidecta obliterata, 85
Aphididae and fungi, 108
Aphids and allergy, 333
Aphis, 108
  craccivora, 85
  fabae, 234
  gossypii, 265
  medicaginis, 85
  nerii, 85
  sambuci, 84-86
  urticae, 85

Aphrophora, 108
Aphrophora saratogensis, 215
Aphrotenia, 158, 160
Aphroteniella, 158, 160-61
Aphroteniinae, 155-57, 160, 163-64
Apis
  dorsata, 481
  florea, 450, 481
  indica, 447, 449, 481
  mellifera
    and Bacillus thuringiensis, 295
    behavior of, 471, 481
    communication, 439-70
    and pyrethrins, 233
    races of, 449
Apomorph characters, 151, 154, 157, 160
Aposematic coloration, 479
Application of systemics, 129-33
Araucania, 161
Arboviruses
  insect-borne, 352-54
  tick-borne, 348
Archaeochlus, 156-58, 160, 163
Archips argyrospilus, 265
Argas, 352
Argyresthia laevigatella, 144
Argyrotaenia velutinana, 265
Arhopalus, 118
Arphia sulphurea, 62
Arrest of development in Coccinellidae, 87
Arrhenius plots, 16, 25, 31
Arthropod acoustics, 495-526
Arthropodin and allergy, 327
Artificial diets for Coccinellidae, 81, 86
Artificial insemination, 474
Ascomycetes and insects, 107, 109-10, 112
Ascorbic acid, 46
Aspidiotus, 108, 110
Assemblies of tsetse flies, 430
Asterolecanium variolosum, 143
Asthma, 323, 329, 333, 335
Ateuchus histeroides, 10
Athripsodes, 194
Atopsyche, 173, 196
ATP, 297
ATPase, 48
Atta, 108
Atta sexdens, 452
Attractant signals, 498
Auditory feedback, 512
Aulacorthum magnoliae, 85
Austral biota, 150
Austral disjunctive distribution, 149-68
Austroperlidae, 152
Autosynergism, 238
Azinphos, 315
Azodrin, 135

B

Babesia canis, 349
Bacillus
  anthracis, 290
  cereus, 288-90, 292-93, 306
  denrolimus, 288
  entomocidus, 288, 292
  finitimus, 288, 291, 303, 305
  megaterium, 290
  thuringiensis, 287-316
Bacterial diseases of Coccinellidae, 92
Bacteriocytes, 117
Bacteriophages
  and Bacillus thuringiensis, 306-7
Bacteriotomes, 117
Bait for tsetse flies, 424
Baltic amber fossils of Trichoptera, 191-92
Banksiola, 189
Banol, 237
Barbara colfaxiana, 215
Bark beetles
  and fungi, 107, 115
  and life tables, 212
Basidiomycetes and insects, 107, 109
Bayer 39007, 143
Baygon, 236, 241
Baytex, 137
Beauveria, 95
Bed bugs
  and allergy, 326
  and rickettsia, 384
Bee
  communication, 439-70
  orientation, 439-70
  -purple, 452
  -white, 452
Beep sounds, 502
Bees
  and allergy, 326, 336, 340-41
  and vibrations, 504
Beetles
  and allergy, 333
  behavioral genetics, 471-74
  hatching of, 33
Behavior patterns, 475
Belmontia, 191
Benzene hexachloride, 314
Beraeidae, 174
BHC, 268, 275
Bidrin, 130, 132, 134-39, 143-44, 242
Biliverdin, 53
Biological control, 79
Bionomics
  of predaceous Coccinellidae, 79-104
  of tsetse flies, 423
Biotrol, 296
Biting insects and allergy, 334
Black pine leaf scale, 137
Blatta orientalis, 334
Blattella germanica, 234, 236, 247
Blood pH, 298
Blood utilization by tsetse flies, 428
Blowfly, 44, 55
Blue-staining fungi, 107, 115, 120
Blue tongue virus, 354
Body louse, 229
Boll weevil, 265
Bombyx mori, 52, 289, 295, 299
Boophilus decoloratus, 400
Boophilus microplus, 386, 405
Bordeaux mixture, 314
Boreochlini, 157-58
Boreochlus, 156-58, 160
Boreoheptagyia, 161
Borrelia
  abortus, 367
  caucasica, 364
  duttoni, 350, 362, 365, 368
  hermsi, 365
  latychevi, 364-65
  mazzottii, 365
  melitensis, 367
  parkeri, 365
  persica, 364
  recurrentis, 361
  suis, 367
  turicatal, 365
Bostrichidae and fungi, 108
Bostrychoplites, 108
Botulinus toxin, 293
Boutonneuse fever, 357, 378, 393, 396-404
Brachycaudus cardui, 85
Brachycentridae, 174, 178
Brachystola magna, 61
Brachytrupes, 499
Brevicoryne brassicae, 84
Brill-Zinsser disease, 377
Bromatia, 121
Brucella, 367
Brucellosis, 367
Bruchias, 22
Bryobia arborea, 19
Bryobia praetiosa, 264
Bumble bees and allergy, 339

Butterflies and allergy, 326
Buzz sounds, 503

C

Caddisfly
allergy to, 323, 326-29
dispersal and evolution, 169-206
phylogeny, 169-206
Cadipicolinate, 297
Calamoceratidae, 174, 181, 193, 195
Calling signals, 500, 508
Calliphora, 48
erythrocephala, 458
vomitoria, 230
Callosamia, 477
Callosobruchus chinensis, 267
Calocidae, 174, 180, 200
Calosoma, 150
Calosoma alternous, 268
Calvia quattuordecimguttata, 85-86
Calvia quindecimguttata, 91
Cambium miner, 140
Camnula pellucida, 66, 68, 70
Camponotus, 108, 111, 118
Cannibalism in Coccinellidae, 87
Captan, 314
Carabid beetles, 150
Carausius morosus, 45, 47-49
Carbamates and synergists, 234-41
Carbaryl, 229, 235-38, 315
Carbonic anhydrase, 46
Carbophenothion, 315
Carpocapsa pomonella, 265
Case-making by caddisflies, 182, 185-86
Castes, 499
Catagapetus, 192
Catecholase activity, 239
Cat fleas and allergy, 334
Cathartus quadricollis, 19
Catopini, 150
Cavariella aegopodii, 93
Cecidomyiidae and fungi, 108
Cecropia, 483
Cell regeneration, 299
Ceneme, 503
Central European tick-borne encephalitis virus, 351
Cerambycidae and fungi, 108, 110, 114
Ceratopogonidae and calling signals, 508
Cercopidae and fungi, 108
Ceroplastes, 108
Chaoborus astictopus, 270
Chemical senses of bees, 462
Chemotaxis, 90
Chermidae and fungi, 108
Cheumatopsyche, 200, 202
Chigger, 265
Chilocorus
bipustulatus, 80, 84, 87, 91, 94
cacti, 85
geminus, 80
hexacyclus, 81
kuwanae, 89
stigma, 85
tricyclus, 81
Chimarra, 192-93, 196, 200, 202
Chipman R-6199, 133-36, 138, 144
Chipman R-6200, 132
Chironomidae and insecticides, 264
Chironomid distribution, 152-55
Chironomus, 48
Chirp sounds, 502-3
Chitin and allergy, 327
Chloranil, 314
Chlordane, 258, 261
Chlorinated hydrocarbons
consequences of use, 257
Chloropulvinaria floccifera, 94
Cholesterols, 71
Cholinesterase, 241, 243
Choristoneura fumiferana, 210, 271
Choristoneura rosaceano, 265
Chorthippus
biguttulus, 488
brunneus, 488
curtipennis, 68
Chorusing, 512-13
Chrysanthemic acid, 230-32
Chrysops, 266
Cicada, 108
Cicadas, alarm sounds, 506
Cicadellidae and fungi, 108
Cicadidae
and calling signals, 508
and fungi, 108
Cimex lectularius, 29, 34, 326
Cinerins, 230-33
Click sounds, 502
Clinotactic orientation, 461-63
Clusters of Coccinellidae, 89
Coccidae and fungi, 108
Coccinella
distincta, 92
divaricata, 92
hieroglyphica, 80
quinquepunctata, 90
septempunctata, 80-83, 85-88, 90-91, 94
septempunctata bruckii, 87
undecimpunctata, 80, 83, 86, 91
undecimpunctata aegyptica, 84, 89
Coccinellidae
bionomics of, 79-104
ecology of, 79-104
and insecticides, 266
Coccinula quattuordecimpustulata, 90
Cockroaches
and gut absorption, 43-44, 50
and synergists, 236-37
Cocoon
construction, 477
making by Coccinellidae, 183
spinning, 483
COCS, 314
Codling moth, 265
Cold-hardiness, 35
Coleomegilla maculata, 83-84, 86, 267-68
Coleophora laricella, 144
Coleoptera and fungi, 108
Collembola
and embryogenesis, 25, 33
and insecticides, 261
Colorado tick fever virus, 348-49, 351-52
Color
patterns of Coccinellidae, 79
receptors, 453
vision of bees, 452-54
vision of grasshoppers, 66
Comb construction, 475
Communication
acoustical, 495-526
Competition for food by tsetse flies, 429-30
Complement fixation, 357, 379-80, 385, 395, 402-3, 405
Concentration gradients and gut absorption, 52
Conditioning, 514
Conomellus, 108
Conotrachelus nenuphar, 508
Consequences of insecticides use, 257-86
Contamination
of air, 259
of environment, 127, 129

of plants, 260-61
of soils, 259
of water, 258
Contarinia oregonensis, 137, 144
Convergence in chironomids, 157
Co-operative behavior, 474
Copper metabolism, 46
Copper oxychloride, 314
Copris bidens, 10
Copris conspicillatus, 10
Copulation and Coccinellidae, 81
Copulatory signals, 500
Coquebert, A. J., and Fabricius, 10
Cotton aphid, 265
Cotton leafworm, 265
Courtship
behavior, 471-73, 477, 483
display, 490
signals, 500, 507, 514
Cowdria, 378
Cowdria ruminantium, 360
Coxal organs and spirochetes, 362
Coxiella burneti, 359, 378, 380
Crepitation, 502
Cresolase, 239
Crickets
and allergy, 333
communication in, 498
and diapause, 36
fertility of, 33
hatching of, 33
sounds of, 476, 503
Crimean hemorrhagic fever, 352
Criocephalus, 118
Crop, 44
content, 62
emptying, 43-44, 50, 54
Crossotarsus, 108
Cryptic coloration, 479, 482
Cryptolaemus, 95
Cryptolaemus montrouzieri, 86, 94
Crystalliferous bacteria, 287-316
Crystal protein, 302
Ctenocephalides felis, 334
Ctenophthalmus arvalis, 392
CTF virus, 348-49
Culex
pipiens, 16, 44, 295, 349, 353
quinquefasciatus, 334, 353
tarsalis, 243, 295, 353
Culicidae and calling signals, 508
Culicoides, 354
Culicoides furens, 334
Culturing of symbiotes, 113
Curculio, 144
Curculionidae and fungi, 111
Cutaneous respiration, 181
Cuticle
and allergy, 327
tanning, 473
Cyphomyrmex, 108
Cyrtoxipha, 516
Cysteine, 46
Cytogenetics of Coccinellidae, 81
Cytotrope, 118

D

Dacus dorsalis, 30
Danaus plexippus, 332
Dancing by bees, 440-50
DDD, 269-70, 274-75
DDE, 245-46, 268-69, 274-75
DDT
compatibility with B. thuringiensis, 314
consequences of use, 257-62, 265-66, 268-72, 274-75
dehydrochlorinase, 247-48, 250, 252
detoxifying enzymes, 247-48
and forest insects, 143
resistance, 247
and synergists, 229, 245-52
Dealkylation, 236
Defensive behavior, 481
Defoliator evaluations, 223
Dehydrochlorinase of DDT, 246
Delayed effects of insecticides, 277
Demethylation of OP compounds, 242
Demeton, 128-29, 134, 136, 143-44, 314
Dendroctonus, 115
frontalis, 115
manticolae, 144
obesus, 210
ponderosae, 212
Dendrolimus pini, 307
Dengue, 352
Density-dependent factors and forest insects, 208
Dermacentor, 265
albipictus, 387
andersoni, 348-49, 352-56, 358-59, 382-86, 406
auratus, 404
marginatus, 357-59, 366-67, 380, 393-94, 396, 401
nitens, 358, 385
nuttalli, 351, 357, 391, 393
parumapertus, 386
pavlovskyi, 367
pictus, 350, 357-59, 380, 394
reticulatus, 394, 401
silvarum, 357, 391, 393-95
variabilis, 353-56, 366, 382-83, 387, 404, 406
Dermacentorxenus, 378, 390
Dermanyssus gallinae, 352, 354
Desensitization, 324-25
Deterrent signals, 498
Detoxication of carbamates, 235
Detoxication site in tsetse flies, 231, 428
Development, 15-42
limits of, 33-35
metabolism, 16
and parental age, 16
rate of Coccinellidae, 81
and temperature, 16, 18-22, 27-33
Diamesinae, 155, 161, 163
Diamondback moth, 309
Diapause, 16, 18, 26, 34
in Coccinellidae, 81, 87-91
facultative, 19, 22
and metabolism, 17
and strains, 19
and temperature, 19, 35-37
Diaphania dorsalis, 327
Diapus, 108
Diaspididae and fungi, 108
Diaspidiotus liquidambaris, 143
Diatraea saccharalis, 258, 265
Diazinon, 242, 244, 315
Diazinoxon, 242
Diazoxon, 244
Dichlone, 314
Dichlorvos, 244
Dicofol, 315
Dieldrin, 258-61, 265, 272, 274, 276-77
Digestive enzymes, 71
Dimefox, 129, 134, 136, 138, 144
Dimethoate, 128-30, 133, 135-37, 139, 143-44
Dimetilan, 128, 143-44
Dinitrocresol, 315
Diplectrona, 202
Diprion pini, 295-96
Diprion similis, 130, 132, 141, 144
Dipseudopsis, 194

Dipseudosidae, evolution of, 174
Diptera and fungi, 108
Disjunctive distribution, 149-68
Dispersal, 152, 165, 498
  capacity, 154-55
  of Chironomidae, 155-67
  patterns of tsetse flies, 432
  of Trichoptera, 169-206
Dissosteira spurcatus, 62
Distance attraction of tsetse flies, 434
Distance measurement by bees, 445-48
Distribution
  of austral insects, 149-68
  of Coccinellidae, 81-84
  of systemics, 128
Disturbance sounds, 500, 506-7
Disulfoton, 137
Di-Syston, 134, 144
Diurnal rhythms, 20
DMC, 229, 248, 252
Dodine, 314
Dolichovespula maculata, 334
Doliopygus, 108
Domestic animals and insects, 276
Donnan equilibrium, 48
Dormancy in Coccinellidae, 87
Drepanosiphum, 108
Dreyfusia nüsslini, 144
Drift of flying bees, 447
Drosophila, 514
  melanogaster, 17, 20, 247, 249, 297, 472-74, 476-78, 481
  obscura, 485
  paulistorum, 490-91
  persimilis, 473, 487-88
  pseudoobscura, 473, 485, 487-88
  simulans, 478, 481
  subobscura, 473
Drug extenders, 240
Drugstore beetle, 114
Dryocoetes, 120
Dutch elm disease, 275
Dysdercus fasciatus, 47-48

E

Eastern equine encephalitis virus, 350
Ecchymoses nuptiales, 435-36
Ecdysial transmission, 347
Echo-location signals, 505
Ecology of predaceous Coccinellidae, 79-104
Ectosymbiosis, 105, 114-17, 119
Effectiveness of Coccinellidae, 92
Egg production of grasshoppers, 70
Ehrlichia
  bovis, 360
  canis, 360
  ovina, 360
Electragapetus, 192
Electro-osmosis, 48
Elm bark beetles, 131, 133, 135
Embryogenesis and temperature, 15-42
Embryonic development, 15-42
Emma field cricket, 19
Endoplasmic reticulum, 299
Endosulfan, 314
Endosymbiosis, 105, 107, 113-14, 118-20
Endosymbiotes, 110-11
Endotoxins of Bacillus thuringiensis, 294-98, 307-9, 311
Endozoic transmission, 120
Endrin, 258-61, 267, 270, 272, 277, 314
Enemies of Coccinellidae, 92
Energy source for embryogenesis, 17
Environmental pollution, 278
Enzymes and embryogenesis, 16
Ephemeroptera and insecticides, 264
Ephestia, 477
  see also Anagasta
Epicuticular wax layer, 44
Epidemic typhus, 358-59, 377
Epidiectic behavior, 512
Epilachna chrysomelina, 80
Epilachna currupta, 90
EPN, 245
EPN-oxon, 245
Equine encephalitis, 352
Eradication programs, 257, 265-66
Eriocraniidae, evolution of, 172-73
Erittetix simplex, 64, 71
Erlichia, 378
Ernobius mollis, 114
Erodius cassidoides, 10
Errors of bee dances, 443
Esterases of Bacillus thuringiensis, 289
Estigmene acrea, 295, 309
Ethology of Coccinellidae, 89
European corn borer, 313
European pine shoot moth, 223
Eurygaster rutegripes, 307
Euthystria brachyptera, 69
Eutrombicula alfreddugesi, 265
Euxoa segetum, 295
Evagoria starki, 222
Evaluation of infestations, 207-28
Evolution
  of behavior, 471-94
  of social life, 474
  of Trichoptera, 169-206
Evolutionary genetics, 488
Excretion by tsetse flies, 428
Exotoxin of Bacillus thuringiensis, 289, 293-94, 299, 307-11
Extraspecific communication, 497
Eye-color mutants, 472, 476
Eye pigment, 472

G

Galleria mellonella, 288, 295, 299-300, 307
Gall midges and systemic insecticides, 136
Gamasid mites and typhus, 392
Gamma BHC, 258, 260
Ganonema, 186
Gene action and behavior, 472
Gene's organ, 350
Genetics of behavior, 471-94
Genetic studies of Coccinellidae, 79
Geographical isolation, 488, 490
Geologic history of Trichoptera, 190-92
Geotaxis
  in bees, 445
  in Coccinellidae, 83, 86, 90
  selection for, 478
Geotrupes dentatus, 10
Geotrupes monoceros, 10
German cockroach, 234, 236
Gills of caddisflies, 186-87
Glossina, 487
  austeni, 424, 426
  brevipalpis, 424, 426-28, 431-33
  fusca, 426, 431-34
  fuscipleuris, 426, 433
  haningtone, 433
  longipalpis, 426

longipennis, 426-28, 430-32
medicorum, 431-34
morsitans, 422, 426, 429, 434-35
morsitans submorsitans, 427
nashi, 433
nigrofusca, 431-33
pallidipes, 422-27, 434
palpalis, 424, 426, 434, 436
palpalis palpalis, 426
swynnertoni, 426, 429
tabaniformis, 426, 431-33
tachinoides, 425-26
Glossosoma, 184, 193
Glossosoma intermedium, 194
Glossosomatidae, evolution of, 173-77, 183, 188, 192-93, 195
Glucose absorption, 50
Glutathione, 46
Glycerol, 17
Glycogen
and Coccinellidae, 88
in embryogenesis, 17
and gut absorption, 53
Glycolytic pathways, 46
Glyodin, 314
Goblet cells, 299
Goeridae, evolution of, 174, 178
Gomphocerus rufus, 486
Grasshopper
food selection, 59-78
hatching of, 33
Gravity, 450
response, 66
and waggle dance, 442
Gripopterygidae, distribution of, 152
Ground crickets, 511
Growth factor, 71
Gryllodes sigillatus, 517
Gryllus
bermudiensis, 489, 510
bimaculatus, 476, 509
campestris, 475-76, 486, 509, 517
commodus, 24
firmus, 489, 510
fultoni, 510
pensylvanicus, 36, 489, 509
veletis, 489, 509
vernalis, 510
Gustatory preference, 427
Gut
absorption, 43-58
barrier, 348
movements, 43-44
paralysis, 298-99
pH, 300-2, 307
and Rickettsia, 359
Guthion, 242
Gypsy moth, 257

H

Habitat selection by grasshoppers, 60
Haemaphysalis, 265, 367
asiaticum, 357
bancrofti, 405
bispinosa, 404
concinna, 351, 357, 391, 393-95
cornupunctata, 394
humerosa, 405
japonica douglasi, 351, 393, 395
leachi, 356, 397-400
leachii indica, 462
leporispalustris, 356, 385, 388-89
papuana nadchatrami, 403
punctata, 367, 394
semermis, 403
spinigera, 349
warburtoni, 367
Haematobia irritans, 296
Haemolaelaps, 392
H antigen, 289, 292
Hapithus, 516
Haplo-diploidy and social life, 474
Harmonia axyridis, 80, 85, 94
Harpalus pennsylvanicus, 267-68
Harrisonina, 161, 163
Hatching, 20, 24-25, 32-34
of beetles, 33
of bugs, 33
of butterflies, 33
of Collembola, 33
of crickets, 33
of flies, 33
of grasshoppers, 33
of Hymenoptera, 33
of mites, 33
of mosquitoes, 33
of moths, 33
Haustellum, 172
Hay fever, 333
Head-jerk, 502
Heart-water fever, 360
Helicophidae, evolution of, 174
Helicopsychidae, evolution of, 174, 179, 181, 188
Heliothis, 265, 267
virescens, 268, 313
zea, 268
Hemlock looper, 215
Hemocele and viruses, 349, 351, 357
Hemocoel and Bacillus thuringiensis, 298, 302, 309
Hemocytes and viruses, 349
Hemoglobin, 53
Hemolymph, 43, 46, 48-55
and Borrelia, 361
and fungi, 111
Hemorrhagic fevers, 350
Hepialidae, evolution of, 172
Heptachlor, 257-58, 260-63, 265, 268, 272-73, 275-77
Heptagyia, 161
Hesperotettix viridis, 61, 71
Heterosis in Coccinellidae, 95
Hexagenia, 267-68
Hibernation of Coccinellidae, 80-82, 87-90, 95
Himalopsyche, 194
Himalopsyche phryganea, 194
Hindgut, 47
Hippodamia convergens, 83, 87-88, 90, 93-94
Hippodamia tredecimpunctata, 83-84
Histamine, 336
Hister pulcherrimus, 10
Histonyssus, 392
Homadaula albizziae, 143
Homophylax, 193
Homptera and fungi, 107-8, 110
Honey bee
see also Apis
Honey bees
and allergy, 339
communication in, 298
Honeycomb building, 464
Hornets, 336, 339
Horn fly, 296, 309
Host encounter by tsetse flies, 433-34
Host-plant range of grasshoppers, 60
Host-plant selection by grasshoppers, 59
House flies
and allergy, 333
and Bacillus thuringiensis, 293-94, 296-97, 311
and insecticides, 247
and synergists, 230, 236-39, 242-44, 246-48, 250
Hudsonema, 201
Humidity and Coccinellidae, 81-82
Hyalomma, 36, 379
aegyptium, 398, 402
albipermatum, 399
asiaticum, 380, 392, 395-96
marginatum, 352
marginatum rufipes, 379, 398, 400
plumbeum, 352

rhipicephaloides, 379
rufipes, 358
Hyalopterus pruni, 84
Hyaluronidase, 336
Hydrobiosinae, 187, 201
Hydrolysis
of carbamates, 236
of organophosphates, 243
Hydrophilus triangularis, 268
Hydropsyche, 184, 194, 200
Hydropsyche bifida, 329
Hydropsychidae, evolution of, 173-74, 176, 181, 186, 193, 196, 200, 201
Hydroptilidae, evolution of, 173-75, 177, 185, 188, 195
Hydrosalpinx, 181, 195
Hygienic behavior, 475-76
Hygrotaxis, 90
Hylaphora cecropia, 46, 55
Hylecoetus, 108, 110
Hylurgopinus rufipes, 115
Hymenoptera and fungi, 108
Hyperaspis campestris, 94
Hypersensitivity to insects, 324, 334
Hypochlora alba, 61-64, 69
Hyposensitization, 325, 335
Hypsotaxis, 90

I

Icerya purchasi, 84
Ileus viruses, 352
Immobility behavior, 482
Immunity in insects, 111
Immunization and allergy, 325, 332
Imported fire ant, 257, 272
Inbreeding, 473
Incubation period, 19-21, 24, 26, 29-30, 32
Indian bees, 447-48
Indian tick typhus, 396, 402-3
Information transfer, 497
Injection of systemics, 131
Insect control by Bacillus thuringiensis, 311-16
Insecticides
and aquatic insects, 261
and birds, 261, 272-76
and Crustacea, 267
detoxication of, 229
and earthworms, 261-62, 273
and estuarine organisms, 267-68
and fish, 267-72
and humans, 276-78
and invertebrates, 261
and milk, 260, 276-77
residues of, 259, 267-68
resistance to, 229, 267
synergists of, 229-56
systemics in trees, 127-48
and vertebrates, 268-78
and wild mammals, 276
Instinctive behavior, 471
Integrated control, 79, 83, 94
Integripalpia, evolution of, 174, 176-77, 187
Interspecific communication, 497, 505
Introductions of Coccinellidae, 94
Ion metabolism, 46
Ion pump, 46, 55
Ips, 115
Isobutylundecyleneamide, 230, 232
Isolan, 143, 237
Isoptera and fungi, 107-8
Ithone merabilis, 94
Itonida balsamicola, 144
Ixodes, 53
cookei, 404
crenulatus, 367
granulatus, 403-4
hexagonus, 351, 401
holocyclus, 359, 405
persulcatus, 348, 350-51
ricinus, 349-51, 358, 360, 380, 400, 402, 406
scapularis, 404
tasmani, 405
Ixodid ticks and disease, 348

J

Japanese beetle, 272
Japanese B encephalitis virus, 349, 353-54
Johnston organ, 447
Juvenile hormone, 483

K

Kalotermes, 108
Kalotermitidae and fungi, 108
Katahemoglobin, 53
Katatrepsis, 34
Katydid, sounds of, 502, 506
Kelthane, 247, 249
Kenya tick typhus, 396
Kermes, 108
Kermidae and fungi, 108
KFD virus, 350
Kikiria, 179, 201
Kinins, 338-39
Kyasanur forest disease virus, 350

L

Laccifer, 108
Lacciferidae and fungi, 108
Lakshadia, 108
Lambdina fiscellaria, 215
Langat virus, 349
Larch sawfly, 222-23
Larval adaptations of Trichoptera, 182-87, 189-90
Lasioderma, 108
Lasioderma serricorne, 21
Lasiodiamesa, 156-58, 160
Lasius, 108, 111
Laspeyresia pomonella, 307
Leaf-cutting ants
behavior of, 450
and fungi, 111, 120
Leafhopper, 18
Learned behavior, 471
Lecanium, 108
Leg-stroke sounds, 502
Leis conformis, 84
Lepidostoma, 194
Lepidostomatidae, evolution of, 174, 178-79
Leptinotarsa decemlineata, 295
Leptocella, 195
Leptoceridae, evolution of, 173-74, 181, 187-88, 194-95, 200-1
Leptonema, 196
Leptohylemyia coarctata, 34-35
Leptonema tridens, 195
Leucotrichia, 195
Lice and Q fever, 359
Licking in cerambycids, 486-87
Life history of Coccinellidae, 81
Life tables of forest insects, 211-14
Light attraction, 65
Light-compass reaction, 518
Light traps, 65
Light and waggle dance, 442
Lilly 18947, 241
Limaya, 161
Limnephilidae, evolution of, 174, 178, 193
Limnephiloidea, evolution of, 174, 177, 181
Limnephilus, 185

flavicornis, 48
Limnocentropodidae, evolution of, 174, 178
Lindane, 258, 314
Linnaean nomenclature, 1
Linnaeus, and Fabricius, 2
Lipids in Coccinellidae, 88
Lissorhoptrus oryzophilus, 266
Lobodiamesa, 161, 163
Locomotor depressants, 498
Locomotor stimulants, 498
Locust, communication in, 498
Locust, embryonic metabolism, 17
Locusta migratoria
and B. thuringiensis, 295
dispersal of, 195
food selection by, 65-67, 69
Locustana pardulina, 34
Lodgepole needle miner, 222
Lone star tick, 387
Longevity of Coccinellidae, 81
Longevity of grasshoppers, 70
Louping ill virus, 350
Louse-borne Borrelia, 361
Louse-borne typhus, 358-59, 377, 379
Lucerne moth, 309
Lucilia cuprina, 46, 52, 54
Lucilia sericata, 45, 54, 295
Lycophotia saucia, 295
Lyctus, 118
Lyctus linearis, 114
Lymantria dispar, 293
Lymexylonidae and fungi, 108, 110, 111
Lymphocytic choriomeningitis, 354

M

Macronema, 183, 193, 195-96
Macronema zebrata, 329
Macronematinae, evolution of, 181
Macropelopia, 165
Macropsis, 108
Macrosiphum artemisiae, 85
Macrosiphum tanaceti, 118
Maculatum agent, 360, 377-78, 404-5
Magicicada, 516-17
Malacosoma disstria, 222
Malacosoma neustria, 295, 311
Mala-oxon, 242, 244-45
Malaria, 266
Malathion, 242-45, 315
Malpighian tubules
and gut absorption, 44-45, 47
and spirochetes, 362, 364
and viruses, 350
Mamestra brassicae, 293-95, 297, 310
Mamestra oleraceae, 295, 299
Mandibles of grasshoppers, 61
Mandibular
glands, 450-52
secretion, 440
Manduca, 309
Maneb, 314
Mantids, defense mechanism of, 481
Maoridiamesa, 161, 163
Marilia, 196
Marseilles fever, 357, 396, 401
Mating
behavior, 472-74, 476, 478-79
flight, 439
scars, 436
Matrioptila, 195
Mayatrichia, 185, 195
Mayflies and allergy, 326, 333
Mealybugs and systemics, 141
Mecoptera, 190
Meeting place for drones, 440
Megoura viciae, 85-86
Melanoplus, 63
bivittatus, 17, 64, 68, 70-71, 332
bowditchii, 69
confusus, 64
differentialis, 16, 66, 68, 70
femur-rubrum, 63-64, 66, 68, 70
keeleri, 64, 68
sanguinipes, 61-62, 64, 66-67, 69-71
Melipona, 450, 520
merillae, 441
quadrifasciata, 441
Melittin, 336
Melittoma and fungi, 111
Membrane permeability, 43
Mesopsyche, 191
Mesurol, 237
Metabolic changes in the egg, 17
Metabolic heat, 15
Metabolic rate
of Coccinellidae, 88
of tsetse flies, 429
Metabolism
of carbamates, 235
and embryogenesis, 16
of systemics, 128, 133-35
and temperature, 16-17
Metamorphosis
and Bacillus thuringiensis, 297
and infectivity, 366
and temperature, 21
and viral development, 348-49
Metanotal glands, 516
Meta-Systox-R, 128, 134, 140, 144
Metatachardia, 108
Metatetranychus ulmi, 264
Methyl para-oxon, 243
Methyl parathion, 242-43, 314
Metrichia, 195
Mevinphos, 315
Mexican spotted fever, 381
MGK-264, 232, 242
Microbial control, 287
Micro-evolution, 478, 480, 490
Micropterygidae, 172
Microptyma, 191
Microsomal oxidases, 238-40, 242
Microsomal tyrosinase, 239
Microvilli, 299
Midgut
absorption from, 43
caeca, 45
Migadopini, 150
Migration
of Coccinellidae, 89-90
of grasshoppers, 65
Milkweed bug, 237
Mimicry, 92, 474
acoustical, 505
Miogryllus, 517
Mite-borne Rickettsiae, 360-61
Mites
and disease, 348-49
and encephalitis, 352
hatching of, 33
and insecticides, 261, 264
and Q fever, 359
and tularemia, 366
Mitochondria, 48
Mobility ratios, 83
Mode of action of insecticide synergists, 229-56
Molannidae, evolution of, 174, 180
Molting and Bacillus thuringiensis, 296
Monarch butterfly, 332

Monarthrum, 120
Montana agent, 378, 406
Morpheme, 502-3
Morsitans groups of tsetse flies, 424
Mosquitoes
  and allergy, 326, 333-34
  and disease, 348-49
  hatching of, 33
  and insecticides, 258, 264, 267
  sounds, 502
  and tularemia, 366
  and viruses, 352-54
Moths
  and allergy, 326, 333
  hatching of, 33
Mucopolysaccharides, 300
Müllerian mimicry, 92
Murine typhus, 377
Musca autumnalis, 295-96
Musca domestica
  and Bacillus thuringiensis, 293, 295-96
  and insecticides, 267
  and synergists, 230-31, 234, 242, 249
Mutant aliesterase, 237, 244-45
Mutant alleles, 472
Mutualism between insects and fungi, 105-26
Mycangia, 113, 115-16, 119-21
Mycetoblasts, 118
Mycetocytes, 117-19
Mycetome, 113, 117-18
Mycosis, 93
Myrrha octodecimguttata, 89
Myxomatosis, 393, 401

N

Nairobi sheep disease, 352
Naled, 315
Naphthalene, 239, 247
Nassanov gland, 450
Natural enemies and insecticides, 264
Natural selection and behavior, 496
Necrophorus, 505
Necrotauliidae, evolution of, 192
Necrotaulius, 191
Nectar guides, 454
Needle miners, 212
Nematodes and insecticides, 261
Nemobiinae, 511
Nemobius fasciatus, 476
Neodiprion
  abietis, 215
  lecontei, 144
  nanulus, 222
  swainei, 144
Neophylax, 193
Neopsylla setosa, 392
Neotrichia, 185, 195
Nernst equation, 45
Nervous system, embryogenesis of, 17
Nest site directives, 500, 518-20
Net-making caddisflies, 182, 186, 483
Neureclipsis crepuscularis, 329
Noctuids, 26
Nomadacris, 69
Nomadacris septemfasciata, 62, 65
Nomophila noctuella, 309
Nontarget organisms and pesticides, 257-86
Nothrolaspis, 392
Notiomyia, 195-96
Nuclear polyhedral viruses, 305
Nuculaspis californica, 137, 144
Nuptial bruises of tsetse flies, 435
Nutrients and embryogenesis, 16
Nutrition
  and fungi, 116
  of grasshoppers, 71

O

Ocelli of bees, 461
Ochrotrichia, 185
Odontoceridae, evolution of, 174, 196
Odor spectra, 462
Oebalus pugnax, 265
Oecanthus
  argentinus, 509
  fultoni, 510
  nigricornis, 480, 489
  quadripunctatus, 509, 511
  rileyi, 510
Oecetis, 187
Oligomerus, 108
Olivier, A. G., and Fabricius, 10
Ommatidia, 458-59
Omsk haemorrhagic fever virus, 350, 392
Oncopeltus fasciatus
  embryogenesis, 25, 28-34
  and synergists, 237
Oncopera fasciculata, 26
Onychiurus
  fumatus, 34
  imperfectus, 34
  parthenogeneticus, 34
Opatrum hispidum, 10
Opatrum sericeum, 10
Opeia obscura, 71
Operophtera brumata, 19, 22, 34, 223
Organophosphates and synergists, 241-45
Organothiocyanates, 240
Oriboca viruses, 353
Orientation
  of Coccinellidae, 90
  of grasshoppers, 65
  to sun, 66
Ornithodoros
  moubata, 380, 398, 406
  nicollei, 385, 389
  papillipes, 380
  rostratus, 386, 389
  rudis, 385, 389
  turicata, 386
  venezuelensis, 385
Ornithonyssus
  bacoti, 360, 366
  coniceps, 353
  hermsi, 359, 365
  moubata, 350, 353, 358-59, 362-63, 365, 368
  nicollei, 356
  papillipes, 358, 364
  parkeri, 356, 365
  rudis, 356
  tartakowskyi, 364-65
  tholozani, 364
  turicata, 356, 365
Orthopterin, 327
Osmo-receptors, 44
Osmotic gradients and gut absorption, 48-49
Osmotic pressure
  in blood, 44
  in gut, 44, 47-48, 50
Osmotropotaxis, 463
Ostrinia nubilalis, 16, 29, 299
Otobius lagophilus, 385, 389
Ovarian development, 267
Ovaries, 350
  and rickettsia, 359
  and spirochetes, 363-64
Oviposition
  of Coccinellidae, 81
  rates, 18
  by Trichoptera, 187-88
Oxo-decenoic acid, 440
Oxyethira, 185
Oxygen consumption
  and embryogenesis, 16, 31-32
  of tsetse flies, 429

P

Pachypsylla celtidismamma, 144
Pair-forming signals, 507-8
Paleagapetus, 177
Paleoantarctic group, 151

Paleodispersal of Trichoptera, 192-202
Palpalis groups of tsetse flies, 424
Pandemus limitata, 265
Panorpa, 190
Paper wasps and allergy, 334, 339
Papilio, 474
Paraboreochlus, 156-58, 160
Parallelism, 157
Paralysis and B. thuringiensis, 302
Para-oxon, 243-45
Paraphrotenia, 158, 161
Parasemia plantaginis, 489
Parasites of forest insects, 208
Parasporal body, 288-89, 292-94, 304-6
Parasporin, 297
Paratetranychus citri, 144
Parathion, 242, 244, 314
Parochlus, 156-59, 163
  araucanus, 159
  bassianus, 159
  kiefferi, 158-59, 165
Pasteurella pestis, 367
Pasteurella tularensis, 366-67
Pathogenicity of Bacillus thuringiensis, 307
Paulianodes, 195
Pauropods and insecticides, 261
Pavlovskyella nicollei, 389
Pectinophora gossypiella, 266
Pediculus, 53
Pediculus humanus, 359, 361
Periodical cicadas, 512-13
Periomatus, 108
Periplaneta, 236-37, 242
Periplaneta americana
  and gut absorption, 43-44, 50-51, 53
  and insecticides, 295, 334
  and synergists, 242, 247
Peritrophic membrane, 299
Persistence of systemics, 133-35
Pesticycles and nontarget organisms, 257-86
Petrothrincus, 181, 195
pH of blood, 298
pH in gut, 300-2, 307
Phagostimulants for grasshoppers, 68-69
Pharoscymnus numidicus, 85, 87-88
Pharyngeal sense organs, 44
Phenacoccus hirsustus, 84
Phenolase, 239-40, 247
Phenyl mercuryacetate, 314
Philanisidae, evolution of, 174, 180
Philopotamidae, 173-76, 187, 191, 193, 195
Philorheithridae, evolution of, 174, 181, 201
Philornis, 352
Phlebotomus, 348
Phlebotomus papatarse, 354
Phleogothontius quinquemaculata, 332
Phoetaliotes nebrascensis, 64, 67
Phoneme, 502-3
Phonoresponses, 511
Phorate, 128, 134, 136-37, 143-44
Phormia regina, 44, 50-51, 247
Phosdrin, 128, 134
Phosphamidon, 135-37, 139, 143-44
Phospholipases, 292-93, 336
Phospholipids, 293
Phosphorylation, 46
Photokinesis, 65
Photoperiod
  and Coccinellidae, 81, 90-91
  and diapause, 35-36
Phototaxis
  of Coccinellidae, 83, 86, 90
  selection for, 478
Phototrophism, 472-73
Phase differences, 498
Phryganeidae, evolution of, 174, 178, 187, 189
Phryganopsychidae, evolution of, 174, 178
Phylloconistis populiella, 143
Phylloicus, 195-96
Phyllophaga, 261
Phylocentropus, 191-92
  auriceps, 193
  placidus, 193
Phylogenetic reconstruction, 171
Phylogenetic relationships, 154, 158, 161-62, 170
Phylogenetic systematics, 151
Phylogeny of caddisfly, 169-206
Physokermes, 108
Phytobia setosa, 140, 144
Phytotoxicity of systemics, 129-32, 135-41
Pieris brassicae, 291, 295, 299-302, 309-10
Pieris rapae, 299-300
Pigmentation of Coccinellidae, 80
Pine weevil, 210
Pink bollworm, 266
Piperonyl butoxide, 229, 231-34, 236, 238-39, 242
Piperonyl cyclonene, 230, 246
Piping of queen bee, 441, 520
Pissodes strobi, 210
Pisuliidae, evolution of, 174, 180, 195
Plague, 367
Plant selection by grasshoppers, 59
Plant specificity index, 63-64
Plasmodium vivax, 266
Platycleis affirmis, 505
Platycleis sabulosa, 505
Platypodidae and fungi, 106, 108, 111-12
Platypus, 108
Platyscapulus, 108
Plecoptera, 152
Plectrotarsidae, evolution of, 178-79, 200
Pleomorphism in fungi, 105
Plereme, 504
Plesiomorph characters, 157
Plesiomorph groups, 151
Plodia interpunctella, 295
Plum curculio, 508
Plutella maculipennis, 309
Podochlus, 156-59, 163
Podonominae, distribution of, 155-58, 160, 162, 164
Podonomopsis, 156-60, 163
Podonomus, 156-59, 163
Polarized light
  and bees, 454-59
  and grasshoppers, 66
Polistes arenaria, 334, 336
Polycentropodidae, evolution of, 174, 188, 191, 193
Polycentropus, 182, 192-93
Polyhedral protein, 305-6
Polymorphism in Coccinellidae, 79
Popilius disjunctus, 516
Popillia japonica, 272
Population
  density, 86, 91
  dynamics of forest insects, 208-11
  evaluation of forest insects, 211

fluctuations in forest insects, 208
genetics, 151
indexes, 210
intensity, 211
Porthetria dispar
and B. thuringiensis, 293, 295, 298, 307
and insecticides, 257
Post-copulatory behavior, 500, 517
Potassium pump, 46, 55
Potassium/sodium ratio, 47
Potency ratio, 309
Predaceous Coccinellidae, 79-104
Predators of forest insects, 208
Prediction of forest insect infestations, 214
Preferences of grasshoppers, 60-61
Pregnancy rate of tsetse flies, 424-25
Pressure gradient in gut, 47-48
Primitive bee dance, 449-50
Primitive Lepidoptera, 172-73, 175
Primitive Trichoptera, 172-73, 175
Pristiphora erichsonii, 222
Pristiphora pallipis, 295
Probing by tsetse flies, 434
Propylaea quattuordecimpunctata, 81-82, 85, 87-88
n-propyl isome, 229-30, 234, 239, 242
Protective coloration, 481
Protective displays, 480
Protein synthesis
and embryogenesis, 17
by tsetse flies, 428
Protoparce, 309
Protoptilinae, 195
Protopulvinaria, 108
Protozoa, pathogenic, 421
Proventriculus, 44
Pseudococcus njalensis, 144
Pseudovitelli, 117
Psychomyiidae, evolution of, 174, 176, 188
Pterophylla camellifolia, 506
Ptilocolepus, 177
Pullus impexus, 89
Pulse sound, 501-2
Pupal adaptations of Trichoptera, 187
Puparia, 425, 428-29
Purse-case-making caddisflies, 173, 483
Pycnocentrellidae, evolution of, 174, 180
Pyrethrins, 229-34, 237
Pyrolan, 241

Q

Q fever, 359, 378, 392
Quaranfil virus, 351-52
Queensland tick typhus, 359, 378, 405-6
Queen substances, 498

R

Rabies virus, 349
Rasp sound, 502
Rate
of coccinellid development, 92
of embryonic development, 18-22
Rattle sound, 502
Recognition signals, 500
Recolte en carrés, 423-24
Recrudescent typhus, 377
Rectal papillae, 48
Rectum and absorption, 47
Red-banded leaf roller, 265
Red pine sawfly, 222
Red spider mite, 93
Reduviid, alarm sounds, 506
Reflex bleeding, 92
Relapsing fever, 358, 361-66
Remote sensing and forest insects, 223
Repellent signals, 498
Reproductive behavior, 471
Reproductive isolation, 151, 507-8
Reproductive phase, 439, 440
Residues of insecticides, 259, 267-68
Respiration
by caddisflies, 186
and embryogenesis, 17
Respiratory rate
of Coccinellidae, 88
of tsetse flies, 429
Resting sites of tsetse flies, 434
Reticulitermes, 108
Retreat making by caddisflies, 173, 175
Rhabdomeres, 458-59
Rhagium, 118
Rheochlus, 156-60, 163
Rhinitis, 329, 335
Rhipicephalus
appendiculatus, 352, 398
bursa, 360
e. evertsi, 399-400
pulchellus, 397, 399-400
rossicus, 366
sanguineus, 349, 354, 356-57, 359-60, 385-86, 389, 392, 396-402, 404-5
schulzei, 367
simus, 358, 379, 399-400
turanicus, 402
Rhodnius prolixus, 53-54
Rhyacionia buoliana, 10, 144, 223
Rhyacionia frustrana, 144
Rhyacophila, 184, 186, 189, 192-93
Rhyacophilidae, evolution of, 173-77, 182-83, 185-87, 189, 191, 193, 196
Rhyacophiloidea, 177, 187
Rhynchopsyche, 179, 201
Rhynchopsychidae, evolution of, 173-74, 179, 188
Rhythmic behavior, 480, 487
Rhythmic interaction, 512
Rice pests and insecticides, 258
Rice stinkbug, 265
Rice water weevil, 266
Rickettsia
and human diseases, 377-420
and ticks, 377-420
Rickettsia
akari, 360, 378, 405
australis, 359, 378, 405
conori, 357, 378, 393, 396-403
montana, 378, 406
mooseri, 377
parkeri, 360, 378
pavlovskyi, 406
phagocytophila, 360
prowazeki, 357-59, 377, 379-80
quintana, 357, 378
rickettsi, 354-57, 364, 368, 378, 386, 390-91, 404
siberica, 357, 378, 381-91
tsutsugamushi, 357, 360, 378, 406
Rickettsial pox, 360-61, 378, 405
Roaches and allergy, 333
Rocky mountain spotted fever, 354-57, 378, 380, 390-91, 397
Rodolia cardinalis, 84, 94
Roosting of grasshoppers, 60
Round dance by bees, 440
Russian spring-summer encephalitis virus (RSSE virus), 348, 350-51

S

Saddle-case making by caddisflies, 173, 183, 483
St. Louis encephalitis virus, 352-54
Saissetia, 108
Saissetia oleae, 84
Salivary glands
  and rickettsia, 359
  and spirochetes, 362, 364-65
  and viruses, 350-52, 357
Salt-marsh caterpillar, 295, 309
Samia walkeri, 32
Sampling methods for tsetse flies, 421-25
Sandfly and allergy, 334
Sandfly fever, 354
Sao Paulo fever, 381
Sao Paulo typhus, 385
Sawfly, 134, 141, 307
Scale insects and fungi, 107, 113, 116
Scales and allergy, 327
Scaptotrigona postica, 450
Scent glands of Trichoptera, 188
Scent marks, 450
Scents of Lepidoptera, 489
Schiffermüller, I., and Fabricius, 11
Schistocerca gregaria
  embryogenesis, 18, 25
  food selection, 61-62, 66, 68-69
  gut absorption, 44-45, 47-48, 50-52
Schistocerca lineata, 60
Schoengastia, 392
Schradan, 129-30
Sclerotin and allergy, 327
Scolytidae and fungi, 106-8, 111-12
Scotytus multistriatus, 115, 133, 144
Scrub typhus, 360, 378, 406
Scymnus minimus, 93
Sehested, O. R., and Fabricius, 9
Selective pressure, 19
Selectivity of synergists, 233
Semiadalia undecimnotata, 85, 87-91
Semliki forest virus, 353
Sensilla
  ampullacea, 462
  basiconica, 462
  coeloconica, 462
  placodea, 462
  trichodea olfactoria, 462
Sensitivity to insects, 323
Septicemia, 309
Sequential sampling for forest insects, 216-23
Sericin and allergy, 327
Sericostomatidae, evolution of, 174, 180-81, 200
Serology of Bacillus thuringiensis, 289, 306
Sesame oil, 232
Sesamex, 229, 231, 234, 237, 239, 242, 252
Sesamin, 230
Sesoxane, 245
Sevin, 235
Sexual
  behavior, 475, 488
  isolation, 487-91
  stimulation, 498
  transmission of rickettsia, 367-68
  vigor, 472, 478
Shell OS-1836, 144
Sialis lutaria, 47
Siberian tick typhus, 378, 381, 389-90, 397
Sickle dance, 449
Silent Spring, 257, 277
Silk and allergy, 327
Silkworm, 289-90, 298-300, 302, 309, 311
Silphid beetles, 150
Sinoxylon, 108
Sirex, 108
Siricidae and fungi, 108, 111
Sitophilus oryzae, 21, 24
SKF 525-A, 234, 241-42
Smicridea, 201
Social insects, 499-500
Sodium/potassium ratio, 45
Soil application of systemics, 128-29
Solenopsis saevissima richteri, 257, 265, 272
Song discrimination, 511
Song learning, 505
Sorbitol, 17
Sortosa, 193, 195, 200
Sound
  group, 503
  phase, 502
  production, 495
  reception, 495
  sentence, 503
  syllable, 502
South African tick typhus, 396
Speciation process, 151
Spectral sensitivity, 453
Spermathecae, 88
Spermatogenesis, 88
Spermatophores, 368, 517
Spermiophores, 368
Sphinx moth, 332
Spiders and vibrations, 505
Spirochetes of relapsing fever, 350
Spittlebug, 215
Spore count, 308
Spray application, 127
Spruce beetle, 210
Spruce budworm, 210-11, 215-16, 222-23, 271, 273
Stable fly, 296
Startle display, 481
Stegobium paniceum, 114
Stenopsychidae, evolution of, 173-76
Sterile male technique, 487
Sterols, 71
Stethorus bifidus, 89
Stethorus punctillum, 81, 84-85, 87-89, 91, 93
Stick insect, 45
Stimulant signals, 498
Stingless bees, 441, 450, 519-20
Stings and allergy, 323, 334
Stomoxys calcitrans, 296
Stonefly, 152
Stridulation, 475-77, 481-82, 499, 502, 512-13
Structure and synergism, 237
Sublethal doses of insecticides, 266-67
Substrate vibrations, 505-6, 519-20
Suckling lice, 326
Sugarcane borer, 258, 265
Sulfoxide, 229, 234, 239, 242
Sun-compass reaction, 459-62
Symbiosis, 105
Symbiote transmission, 117-21
Sympatric species, 488-89, 509
Symphylids and insecticides, 261
Synapomorph characters, 155
Synergism
  and detoxication, 230
  and insecticides, 229-56
  and structure, 232
Synergistic ratio, 229, 231-34, 236, 238, 240-41, 246, 248, 250-51
Synharmonia conglobata, 80, 83, 86
Synonycha grandis, 89
Systema glossatorum, 5, 6
Systema rhyngotorum, 18
Systemic insecticides and trees, 127-48

Swarming of bees, 439, 518
Swimming by caddisflies, 187

T

Tabanid feeding, 430
Tabanids and tularemia, 366
Tabanus, 266
Tachardia, 108
Taeniothrips larvicivorus, 144
TBE virus, 351
TDE, 248
Teleogryllus mitratus, 19, 36
Temperature
and Coccinellidae, 81, 86, 90
control, 15
and development, 27-33
and diapause, 16, 19
and embryogenesis, 15-42
and enzymes, 16
and fatty acids, 17
and metabolic processes, 16-17
and nutrients, 16
and oxygen consumption, 16
and proteolytic activity, 17
and rate of development, 18-22
threshold for development, 17-18, 25, 27, 31-32
Tenebrio
aeruginosus, 10
cyancicollis, 10
impressus, 10
Teneral tsetse flies, 421
Tent caterpillar, 222, 295, 311
Tephritid development, 23
TEPP, 315
Termite
alarm sounds, 506
communication in, 498
and fungi, 108, 110, 115, 119
and vibrations, 504
Territorial display, 484
Tetranychidae and insecticides, 264-66
Tetranychus cinnabarinus, 33
Tetranychus urticae, 264
Tetropium, 118
Tettigoniidae and calling signals, 508
Thanatosis, 92
Thanite, 240
Therioaphis maculata, 94
Thermal summation, 25, 27
Thermonectes basilaris, 267-68
Thesprotia filum, 482
Thigmotaxis, 90
Thiocarbamates, 314
Thremmidae, evolution of, 174
Threshold temperature and development, 17-18, 25, 27, 31-32
Thuricide, 295-96
Thylakion, 195
Thyridopteryx ephemeraeformis, 140
Tibicen, 516-17
Tick-borne
Borrelia, 361
encephalitis virus, 349, 351
Ticks
paralysis, 386
and rickettsial disease, 377-420
typhuses, 357
and virus disease, 348-54
Tineola bisselliella, 53
Tobacco budworm, 313
Tobia fever, 381
Tønder Lund, N., and Fabricius, 9
Toothstrike, 502
Torulopsis, 108
Toxaphene, 262-63, 268, 270, 314
Toxin of Bacillus thuringiensis, 289, 292-306
Trail marking, 457, 498
Trans-Antarctic
dispersal of Trichoptera, 200-2
relationships, 149-68
Transfer through gut
of inorganic ions, 44-49
of water, 44-49
Translocation
of insecticides, 260
of systemics, 128, 131-33
Transmission
of fungi, 106
of symbiotes, 117
Transovarial development, 347-76
Transovarial transmission, 347-76, 393, 398, 401
Transport of systemics, 128
Trans-stadial development, 347-76
Trans-stadial transmission, 347-76, 401
Trechini, 150
Trehalose in blood, 47, 50-52, 55
Tremex, 108
Trench fever, 378
Triaenodes, 200
Triatoma infestans, 247
Tribolium castaneum, 21, 31
Tribolium confusum, 16, 19-20, 25, 29, 34
Trichlorfon, 315
Trichoplusia ni, 268
Trichoptera
dispersal and evolution, 169-206
and insecticides, 264
Trichotanypus, 156-58, 160
Triglycerides and embryogenesis, 17
Trigona, 441
Trigona iridipennis, 450
Trill sound, 502-3
Triplectides, 186, 201
Triplectidinae, evolution of, 201
Trogidae, calling signals of, 508
Trogosita elongata, 10
Trombicula
akamuchi, 360
deliensis, 360
pallida, 360
scutellaris, 360
Trophallaxis, 500
Tropisternus lateralis, 268
Tropochemical orientation, 462
Tropotactic orientation, 461-63
Trypanosoma, 421
Trypanosomiasis, 430
Tryphaena pronuba, 26, 29, 34
Trypodendron, 120
Trypopitys, 108
Tsetse flies, bionomics of, 421-38
Tube-case making by caddisflies, 173, 175, 177, 185, 486
Tularemia, 366
Tymbal pop, 502
Type specimens of Fabricius, 9
Typhus, louse-borne, 377, 379
Tyrophagus putrescentiae, 19
Tyrosinase, 239-41

U

Ultraviolet light and bees, 452, 454
Uptake
of copper, 46

of glucose, 55
of ions, 43-49
of iron, 46
of molecules, 43
of systemics, 127-31
of water, 44-49
Urea derivatives, 315
Uric acid excretion, 428
Urocerus, 108

V

van't Hoff rule, 25
Variability in Coccinellidae, 79
Vectors of trypanosomes, 436
Venezuelan equine encephalitis virus, 353
Venom and allergy, 325, 334-39
Verdohaem, 53
Vespa, 450
crabro, 339
vulgaris, 339
Vibidia duodecimguttata, 89
Vigor, 478
Virulence of R. rickettsi, 356, 381
Virus diseases of Coccinellidae, 92
Virus inactivation, 348
Virus-vector specificity, 348
Viscosity of meal, 44
Voltinism in Coccinellidae, 90-91

W

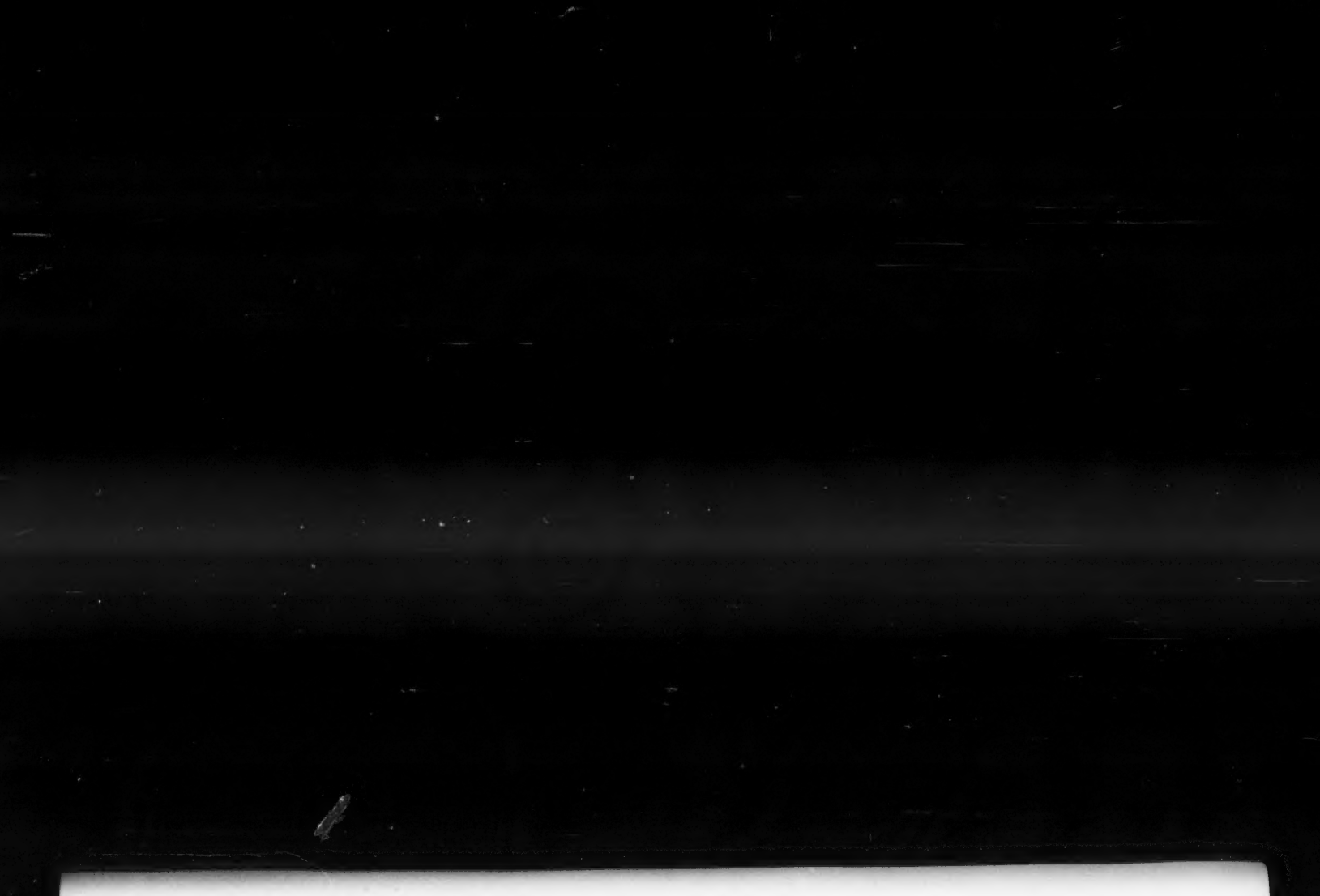
Waggle dance by bees, 440-45, 519
WARF, 229, 242, 251
Wasps and allergy, 321, 336-37, 340-41
Water content of Coccinellidae, 88
Wax moth, 293
Weber, F., and Fabricius, 10
Webworms, 134
Western equine encephalitis virus, 353-54
West Nile virus, 353
Wettable sulfur, 314
White pine weevil, 223
White sawfly, 215
Wind drift of bees, 448
Wing display, 272, 480-81, 485
Wing-snap, 502
Wingstroke, 502
Winter moth, 223
Withius subruber, 141
Wolbachia, 378, 383
Wood wasps, 116
Wormaldia, 193
kyana, 195
pauliana, 195

X

Xestobium, 108
Xiphocentronidae, evolution of, 174, 176, 187
Xyloterus, 120

Y

Yellow fever virus, 352
Yellow jackets and allergy, 336-37, 339-41
Yphria, 178

Z

Zectran, 134, 235, 237-38, 140
Zelandochlus, 156-59, 163
Zeugloptera, 172
Zineb, 314
Ziram, 314
Zonocerus variegatus, 60, 66, 70
Zootermopsis, 108
Zootermopsis angusticollis, 506